CDP-XB930/XB930E

SERVICE MANUAL

AEP Model
CDP-XB930
UK Model
E Model
CDP-XB930E

PHOTO : CDP-XB930 (BLACK Model)

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Model Name Using Similar Mechanism	CDP-XB920/XB920E
CD Mechanism Type	CDM36C-14D
Base Unit Type	BU-14D
Optical Pick-up Type	KSS-213B/K-N

SPECIFICATIONS

Compact disc player

Laser	Semiconductor laser (λ = 780 nm) Emission duration: continuous
Laser output	Max 44.6 µW* * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up block with 7 mm aperture.
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 113 dB
Dynamic range	More than 99 dB
Harmonic distortion	Less than 0.0025%
Channel separation	More than 105 dB

Outputs

	Jack type	Maximum output level	Load impedance
LINE OUT	Phono jacks	2 V (at 50 kΩ)	Over 50 kΩ
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length:660nm
DIGITAL OUT (COAXIAL)	Coaxial output connector	0.5 Vp-p (at 75 Ω)	75 Ω
PHONES (only for CDP-XB930)	Stereo phone jack	10 mW	32 Ω

General

Power requirements	220 V – 230 V AC, 50/60 Hz
Power consumption	15W
Dimensions (approx.) (w/h/d)	430 × 115 × 290 mm (17 × 4 5/8 × 11 1/2 in.) incl. projecting parts
Mass (approx.)	6.0 kg (13 lbs 04 oz)

Supplied accessories

Audio cord (2 phono plugs–2 phono plugs) (1)
Remote commander (remote) (1)
R6 (size AA) batteries (2)
Stabilizer (1)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

MICROFILM

SONY®

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

The laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

This caution label is located inside the unit.

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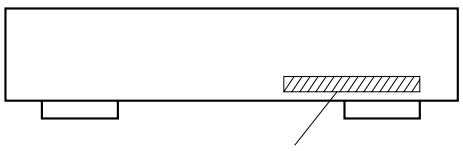
Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing
- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION
— BACK PANEL —



4-219-772-0□: XB930 (AEP) model
4-219-772-1□: XB930E (UK) model
4-219-772-2□: XB930E (Singapore) model

CD-TEXT TEST DISC

This unit is able to display the test data (character information) written in the CD on its fluorescent indicator tube.
The CD-TEXT TEST DISC (TGCS-313:4-989-366-01) is used for checking the display.
To check, perform the following procedure.

Checking Method:

1. Turn ON the power, set the disc on a tray, and chuck the disc.
2. Press the [▷] button and play back the disc.
3. The following will be displayed on the fluorescent indicator tube.
   Display : 1KHZ/0 DB
4. Rotate [⏮◁ AMS ▷⏭] knob to switch the track. The text data of each track will be displayed.
   For details of the displayed contents for each track, refer to “Table 1 : CD-TEXT TEST DISC Recorded Contents and Display”.

Restrictions in CD-TEXT Display

In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it.

Table 1 : CD-TEXT TEST DISC Recorded Data Contents and Display (TRACKS No. 1 to 32:Normal Characters)

TRACK No.	Recorded contents	Display	
1	1kHz/0dB/L&R	1 K H Z / 0 D B – – – –	/L&R are not displayed
2	20Hz/0dB/L&R	2 0 H Z / 0 D B – – – –	/L&R are not displayed
3	40Hz/0dB/L&R	4 0 H Z / 0 D B – – – –	/L&R are not displayed
4	100Hz/0dB/L&R	1 0 0 H Z / 0 D – – – –	B/L&R are not displayed
5	200Hz/0dB/L&R	2 0 0 H Z / 0 D – – – –	B/L&R are not displayed
6	500Hz/0dB/L&R	5 0 0 H Z / 0 D – – – –	B/L&R are not displayed
7	1kHz/0dB/L&R	1 K H Z / 0 D B – – – –	/L&R are not displayed
8	5kHz/0dB/L&R	5 K H Z / 0 D B – – – –	/L&R are not displayed
9	7kHz/0dB/L&R	7 K H Z / 0 D B – – – –	/L&R are not displayed
10	10kHz/0dB/L&R	1 0 K H Z / 0 D – – – –	B/L&R are not displayed
11	16kHz/0dB/L&R	1 6 K H Z / 0 D – – – –	B/L&R are not displayed
12	18kHz/0dB/L&R	1 8 K H Z / 0 D – – – –	B/L&R are not displayed
13	20kHz/0dB/L&R	2 0 K H Z / 0 D – – – –	B/L&R are not displayed
14	1kHz/0dB/L&R	1 K H Z / 0 D B – – – –	/L&R are not displayed
15	1kHz/-1dB/L&R	1 K H Z / - 1 D – – – –	B/L&R are not displayed
16	1kHz/-3dB/L&R	1 K H Z / - 3 D – – – –	B/L&R are not displayed
17	1kHz/-6dB/L&R	1 K H Z / - 6 D – – – –	B/L&R are not displayed
18	1kHz/-10dB/L&R	1 K H Z / - 1 0 – – – –	dB/L&R are not displayed
19	1kHz/-20dB/L&R	1 K H Z / - 2 0 – – – –	dB/L&R are not displayed
20	1kHz/-60dB/L&R	1 K H Z / - 6 0 – – – –	dB/L&R are not displayed
21	1kHz/-80dB/L&R	1 K H Z / - 8 0 – – – –	dB/L&R are not displayed
22	1kHz/-90dB/L&R	1 K H Z / - 9 0 – – – –	dB/L&R are not displayed
23	Infinity Zero w/o emphasis//L&R	I N F I N I T Y – – – –	Zero w/o emphasis//L&R are not displayed
24	Infinity Zero with emphasis//L&R	I N F I N I T Y – – – –	Zero with emphasis//L&R are not displayed
25	400Hz+7kHz(4:1)/0dB/L&R	4 0 0 H Z+ 7 K – – – –	Hz(4:1)/0dB/L&R are not displayed
26	400Hz+7kHz(4:1)/-10dB/L&R	4 0 0 HZ + 7 K – – – –	Hz(4:1)/-10dB/L&R are not displayed
27	19kHz+20kHz(1:1)/0dB/L&R	1 9 K H Z+ 2 0 – – – –	Hz(1:1)/0dB/L&R are not displayed
28	19kHz+20kHz(1:1)/-10dB/L&R	1 9 K H Z+ 2 0 – – – –	Hz(1:1)/-10dB/L&R are not displayed
29	100Hz/0dB/L*	1 0 0 H Z / 0 D – – – –	B/L are not displayed
30	1kHz/0dB/L*	1 K H Z / 0 D B – – – –	/L are not displayed
31	10kHz/0dB/L*	1 0 K H Z / 0 D – – – –	B/L are not displayed
32	20kHz/0dB/L*	2 0 K H Z / 0 D – – – –	B/L are not displayed

* Other channel is infinity zero.

Table 2: CD-TEXT TEST DISC Recorded Contents and Display (TRACKS NO. 33 to 99)
(In this unit, some special characters cannot be displayed. This is no a fault.)

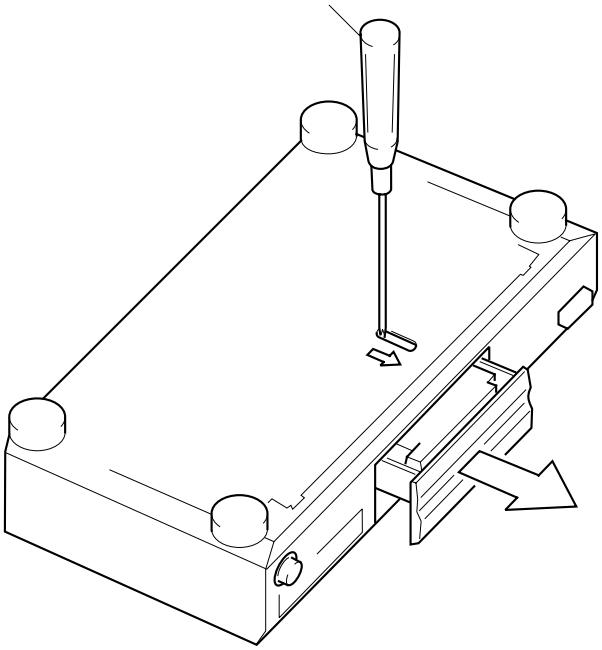
TRACK	Recorded contents	Display
33	100Hz/0dB/R*	1 0 0 H Z / 0 D – – – – B/R are not displayed
34	1kHz/0dB/R*	1 K H Z / 0 D B – – – – /R are not displayed
35	10kHz/0dB/R*	1 0 K H Z / 0 D – – – – B/R are not displayed
36	20kHz/0dB/R*	2 0 K H Z / 0 D – – – – B/R are not displayed
37	100Hz Squer Wave //L&R	1 0 0 H Z S Q – – – – uer Wave //L&R are not displayed
38	1Hz Squer Wave //L&R	1 K H Z S Q U – – – – er Wave //L&R are not displayed
39	1kHz w/emphasis/-0.37dB/L&R	1 K H Z W / E – – – – mphasis/-0.37dB/L&R are not displayed
40	5kHz w/emphasis/-4.53dB/L&R	5 K H Z W / E – – – – mphasis/-4.53dB/L&R are not displayed
41	16kHz w/emphasis/-9.04dB/L&R	1 6 K H Z W / – – – – emphasis/-9.04dB/L&R are not displayed
42	! " # $ % & ' (21h to 27h)1kHz 0dB L&R	' – – – – ! " # $ % & (21h to27h)1kHz 0dB L&R are not displayed
43	( ) * + , – . / (28h to 2Fh)	( ) * + – / – – – – , . (28h to 2Fh) are not displayed
44	0 1 2 3 4 5 6 7 (30h to 37h)	0 1 2 3 4 5 6 7 – – – – (30h to 37h) are not displayed
45	8 9 : ; < = > ? (38h to 3Fh)	8 9 = ? – – – – : ; < > (38h to 3Fh) are not displayed
46	@ A B C D E F G (40h to 47h)	A B C D E F G – – – – @ (40h to 47h) are not displayed
47	H I J K L M N O (48h to 4Fh)	H I J K L M N O – – – – (48h to 4Fh) are not displayed
48	P Q R S T U V W (50h to 57h)	P Q R S T U V W – – – – (50h to 57h) are not displayed
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\ ] ^ _ – – – – (58h to 5Fh) are not displayed
50	` a b c d e f g (60h to 67h)	` A B C D E F G – – – – (60h to 67h) are not displayed
51	h i j k l m n o (68h to 6Fh)	H I J K L M N O – – – – (68h to 6Fh) are not displayed
52	p q r s t u v w (70h to 77h)	P Q R S T U V W – – – – (70h to 77h) are not displayed
53	x y z { I } ~ ▯ (78h to 7Fh)	X Y Z – – – – { I } ~ ▯ (78h to 7Fh) are not displayed
54	▯ ¡ ¢ £ ¤ ¥ ¦ § (A0h to A7h) 8859-1	– – – – All no displayed
55	♪ © ª » ¬ ® ¯ (A8h to AFh)	¬ ¯ – – – – ♪ © ª « ® ¯ (A8h to AFh)are not displayed
56	· ± ² ³ ´ µ ¶ • (B0h to B7h)	· ± ´ – – – – ² ³ m ¶ • (B0h to B7h) are not displayed
57	† ¹ º « ¼ ½ ¾ ¿ (B8h to BFh)	¿ – – – – † ¹ º » ¼ ½ ¾ (B8h to BFh) are not displayed
58	À Á Â Ã Ä Å Æ Ç (C0h to C7h)	À Á Â Ã Ä Å – – – – Æ Ç (C0h to C7h) are not displayed
59	È É Ê Ë Ì Í Î Ï (C8h to CFh)	È É Ê Ë Ì Í Î Ï – – – – (C8h to CFh) are not displayed
60	D Ñ Ò Ó Ô Õ Ö × (D0h to D7h)	Ñ Ò Ó Ô Õ Ö – – – – (D0h to D7h) are not displayed
61	Ø Ù Ú Û Ü Y Þ ß (D8h to DFh)	Ù Ú Û Ü Y – – – – (D8h to DFh) are not displayed
62	à á â ã ä å æ ç (E0h to E7h)	À Á Â Ã Ä Å – – – – æ ç (E0h to E7h) are not displayed
63	è é ê ë ì í î ï (E8h to EFh)	È É Ê Ë Ì Í Î Ï – – – – (E8h to EFh) are not displayed
64	ð ñ ò ó ô õ ö ÷ (F0h to F7h)	Ñ Ò Ó Ô Õ Ö – – – – (F0h to F7h) are not displa yed
65	ø ù ú û ü y þ ÿ (F8h to FFh)	Ù Ú Û Ü Y – – – – ø þ ÿ (F8h to FFh) are not displayed
66	No.66	NO. 66
67	No.67	NO. 67
to	to	to
99	No.99	NO. 99

* Other channel is infinity zero.

SECTION 1
SERVICING NOTE

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

Insert a screwdriver into the aperture of the unit bottom, and move it in the direction of arrow.



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

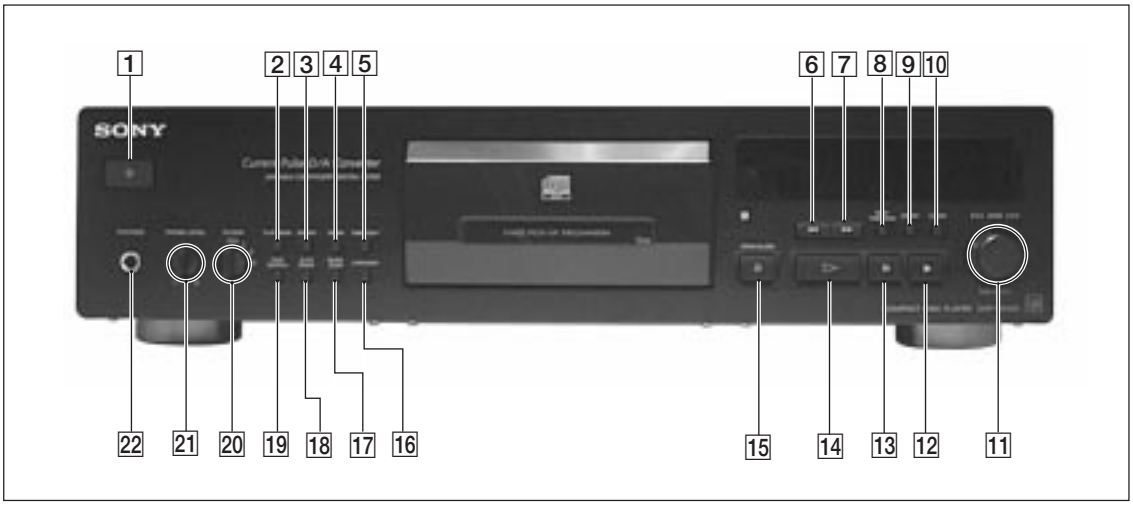
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveform is output two times.

SECTION 2
GENERAL

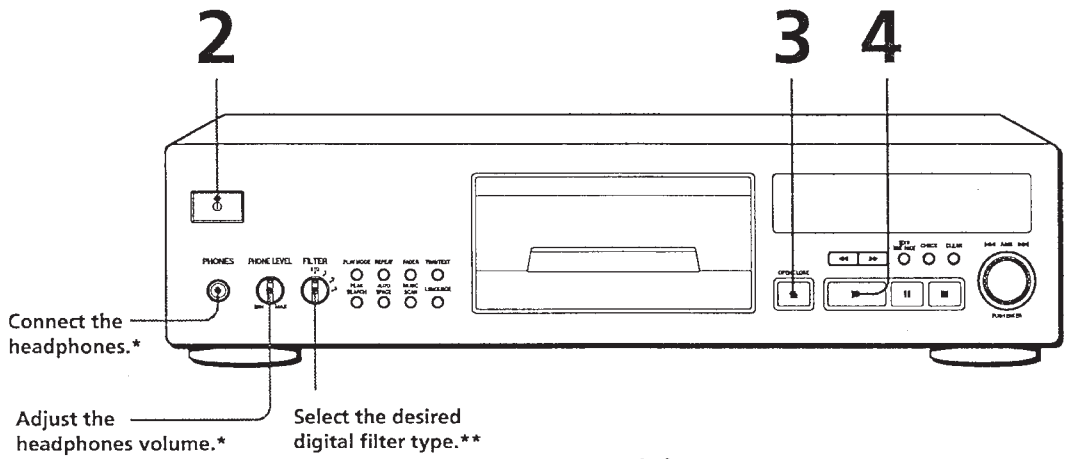
LOCATION AND FUNCTION OF CONTROLS
[FRONT PANEL]



1 ⏻ (POWER) switch
2 PLAY MODE button
3 REPEAT button
4 FADER button
5 TIME/TEXT button
6 ◀◀ button
7 ▶▶ button
8 EDIT/TIME FADE button
9 CHECK button
10 CLEAR button
11 ⏮ AMS ⏭ knob
12 ■ (stop) button
13 ❚❚ (pause) button
14 ▷ (play) button
15 ⏏ OPEN/CLOSE button
16 LANGUAGE button
17 MUSIC SCAN button
18 AUTO SPACE button
19 PEAK SEARCH button
20 FILTER switch
21 PHONE LEVEL volume (XB930 model)
22 PHONES jack (XB930 model)

This section is extracted from instruction manual.

Playing a CD



* Only for CDP-XB930
** Only for CDP-XB930 and CDP-XB930E

- See pages 4 – 5 for the hookup information.

If you turn on the player with a CD in the tray
You can start playing automatically from the beginning of the CD. If you connect a commercially available timer, you can start playing the CD at any time you want.

If "– NO STABI –" appears in the display (only for CDP-XB930 and CDP-XB930E)
Place the supplied stabilizer on the CD.
If you do not, this indication appears.

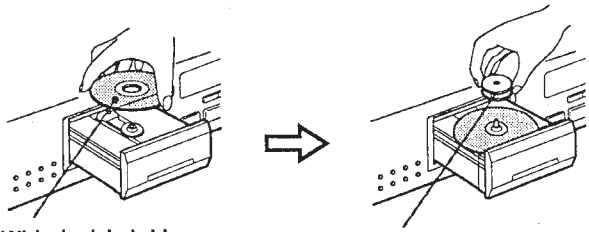
Note
In Step 3, do not place two or more CDs at the same time.
If you do so, you may damage the discs and/or the player.

1 Turn on the amplifier and select the CD player position.

2 Press ⏻ to turn on the player.

3 Press ⏏ OPEN/CLOSE, and place a CD on the tray.

- CDP-XB930 and CDP-XB930E



With the label side up

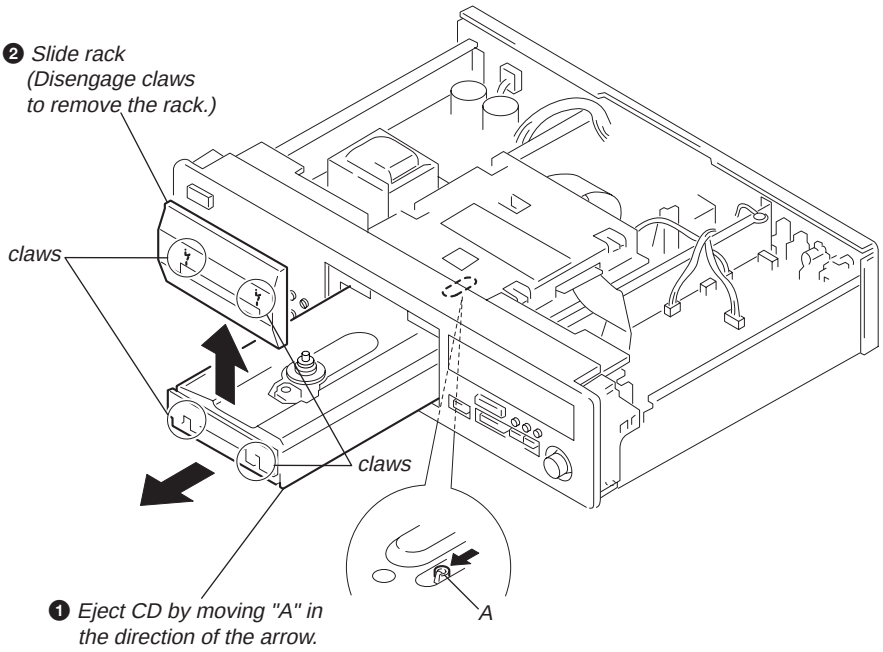
Place the supplied stabilizer on the CD with the smaller hole side facing up.

4 Press ▷.
The disc tray closes and the player plays all the tracks once (Continuous Play).
Adjust the volume on the amplifier.

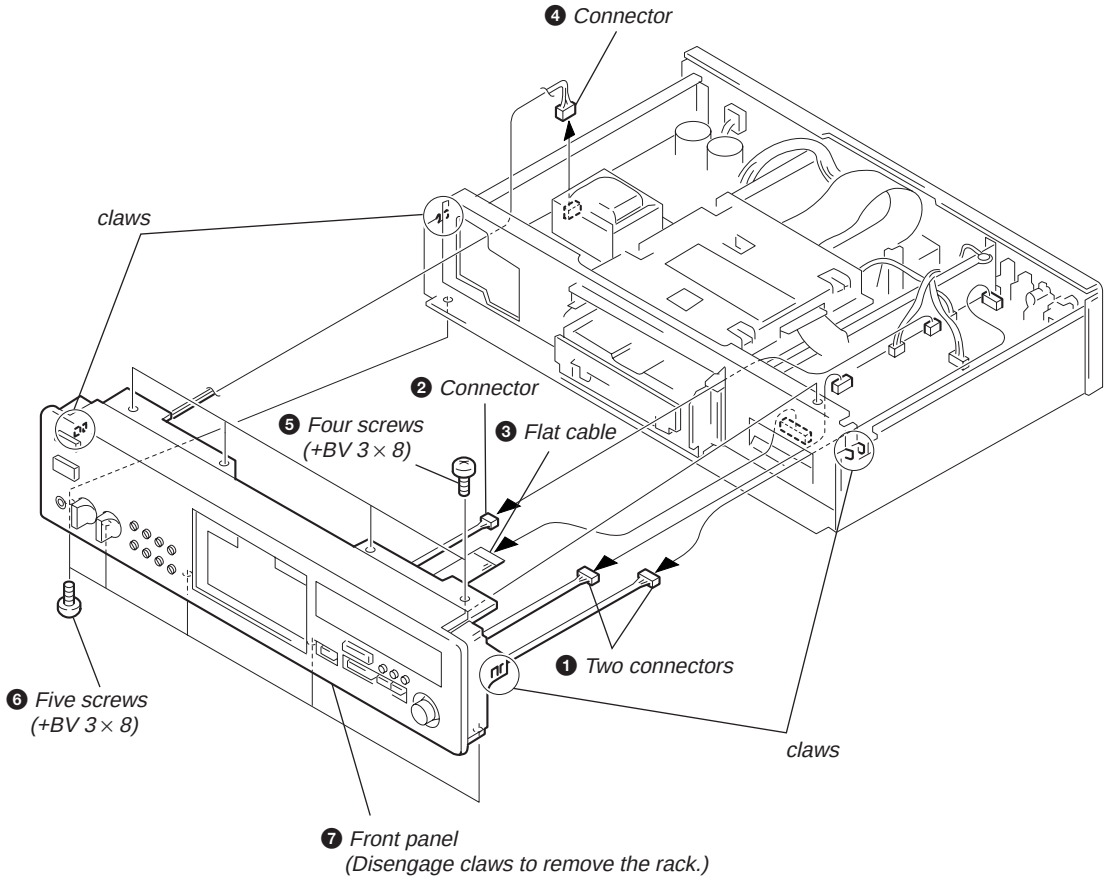
SECTION 3
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

3-1. SLIDE RACK



3-2. FRONT PANEL



SECTION 4
TEST MODE

4-1. AF MODE

The following checks can be performed in the AF mode, which is set by connecting the TP51 (AFADJ) terminal on MAIN board to the Ground and turning on the power.

- **FL tube check**

  After all segments light up, when the ▷ button is pressed, the following will be displayed. (Partial lighting 1)

A B C D E F (Partial lighting 1)

  When the ■ button is pressed, the following will be displayed. (partial lighting 2)

	2		4	
6		8		10
	12		14	
16		18		20

(Partial lighting 2)

  When the OPEN/CLOSE ⏏ button is pressed, all will light up again.

- **Key check**

  All buttons have corresponding button numbers. When a button is pressed, the counter will count up and display the button's number. However, the counter will only count to "18". It will not count for buttons already pressed once, but will display the button's number.(Partial lighting 3)

00 TOTAL=00

Display of button number

Display of counting

(Partial lighting 3)

Button	Button No. Displayed	Button	Button No. Displayed
LANGUAGE	0	EDIT/ TIME FADE	10
MUSIC SCAN	1		
AUTO SPACE	2	CHECK	11
PEAK SEARCH	3	CLEAR	12
PLAY MODE	4	❚❚	18
REPEAT	5	ENTER	20
FADER	6	OPEN/CLOSE ⏏	ALL lit
TIME/TEXT	7		
◀◀	8	PLAY ▷	Partial lighting 1
▶▶	9	STOP ■	Partial lighting 2

When you turn the AMS knob clockwise

JOG RIGHT

When you turn the AMS knob counter-clockwise

JOG LEFT

- **Remote commander check**

  When the ▷ button of the remote commander is pressed, the following will be displayed. All go off when the other buttons are pressed. (Partial lighting 4)

REMOCON PLAY

(Partial lighting 4)

- **Audio check**
  - Initial setting of digital filter and release of mute.
  - When the TP51 (AFADJ) terminal on MAIN board is set to HIGH (VDD), emphasis turns on. When set to LOW (Ground), it turns off.

4-2. ADJ MODE

The following operations are performed in the ADJ mode, which is set by connecting the TP21 (ADJ) terminal to the Ground and turning on the power.

- During playback, there is no problem even if the GFS is continuously LOW.
- High speed search is prohibited during access.
- During playback, the gain of focus servo and spindle servo does not decrease.
- Servo related manual operations and measurement can be performed.
  (For details of operations, refer to Table of Key Operations in ADJ Mode.)

4-3. CLV-S MODE

The spindle servo for playback sets into the CLV-S mode when the TP21 (ADJ) terminal is connected to Ground after turning on the power.

TABLE OF BUTTON OPERATIONS IN ADJ MODE

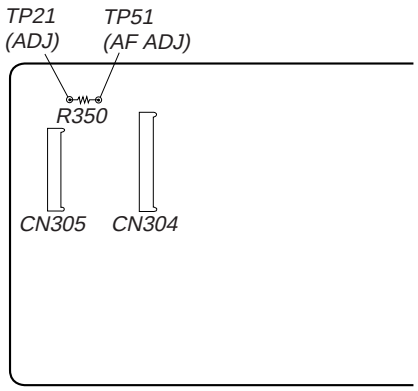
The jitter value display mode can be set after the all-music remaining number mode using the TIME/TEXT button.

The functions of the number buttons are shown in the following table.

FUNCTIONS OF NUMBER BUTTONS (With the attached remote commander)

Button	Function
1	Focus bias 8-step up (hexadecimal)
2	Middle of focus bias up/down turning point
3	Focus bias optimum point, jitter value
4	Tracking servo, sled servo off
5	Tracking gain up
6	Focus bias 8-step down (hexadecimal)
7	Immediate readjustment of focus bias
8	Focus bias 00 point
9	Tracking servo, sled servo on
10	Tracking gain down

[MAIN BOARD] — (Component Side) —



4-4. AGING MODE

This unit is equipped with an aging mode to check operations of the mechanism deck.
• When faults occur:
Aging stops, and the state when aging stopped is displayed on the fluorescent display tube.

• When no fault has occurred:
Aging is continued repeatedly.

Aging method 1
(When using the aging mode remote controller (J-2501-123-A)):

1. Press the ⏻ button and turn ON the power.
2. Set the disc on the tray.
3. Press the AGING START button of the aging remote controller.
4. Aging starts and the message shown in Fig. 1 is displayed on the fluoresent display tube.
5. To end, press the ⏻ button.

Aging method 2 (When no aging mode remote controller):

1. Press the ⏻ button and turn ON the power.
2. Set the disc on the tray.
3. Press the ⏏ OPEN/CLOSE button, ■ button, and MUSIC SCAN button at the same time. (If these buttons are not pressed at the same time, nothing performs.)
4. Aging starts and the message shown in Fig. 1 is displayed on the fluoresent display tube.
5. To end, press the ⏻ button.

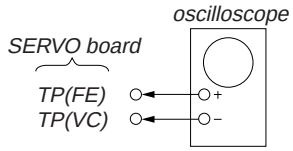
Fig.1 Message in Aging Mode

Code No.	State	Display when normal	Display when abnormal
0	Load in	AGING-0	ERROR-0
1	Access to TOC	AGING-1	ERROR-1
2	Access to last track	AGING-2	ERROR-2
3	Playback of last track (3 seconds)	Counter display	ERROR-3
4	Access to first track	AGING-4	ERROR-4
5	Playback of first track (3 seconds)	Counter display	ERROR-5
6	Load out	AGING-6	ERROR-6

SECTION 5
ELECTRICAL BLOCK CHECKING

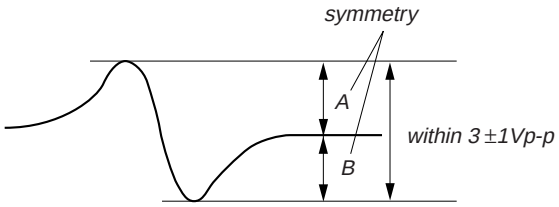
Note:
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :
1. Connect oscilloscope to test point TP (FE) on SERVO board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turn ⏻ (power) switch on.
4. Put disc (YEDS-18) in and turn ⏻ (power) switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.

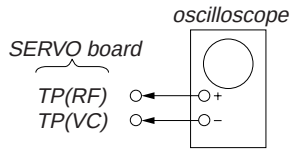
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

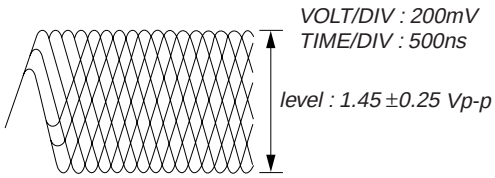
RF Level Check



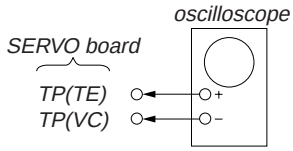
Procedure :
1. Connect oscilloscope to test point TP (RF) on SERVO board.
2. Turn ⏻ (power) switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note: A clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform

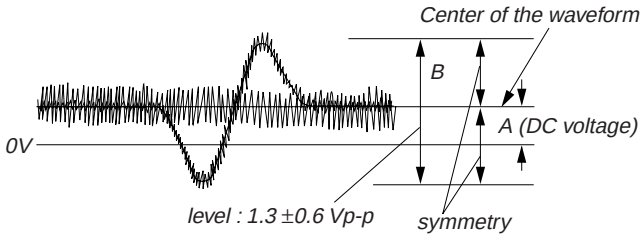


E-F Balance (1 Track Jump) Check (Without remote commander)

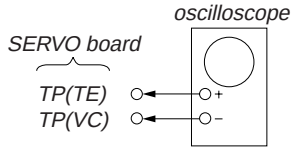


Procedure :
1. Connect oscilloscope to test point TP (TE) on SERVO board.
2. Turn ⏻ (power) switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the "❚❚ (Pause)" button. (Becomes the 1 track jump mode)
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

1track jump waveform

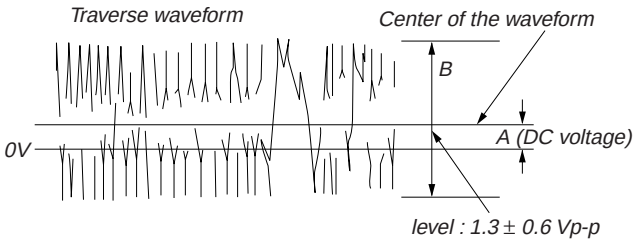


E-F Balance (Traverse) Check (With remote commander)

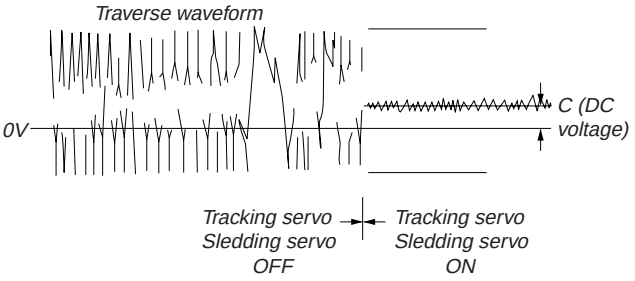


Procedure :
1. Connect oscilloscope to test point TP (TE) on SERVO board.
2. Connect the test point TP21 (ADJ) on MAIN board to the ground with a lead wire.
3. Turn the ⏻ (power) switch on to set the ADJ mode.
4. Put disc (YEDS-18) in to play the number five track.
5. Press the "4" button. (The tracking servo and the sledding servo are turned OFF.)

6. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

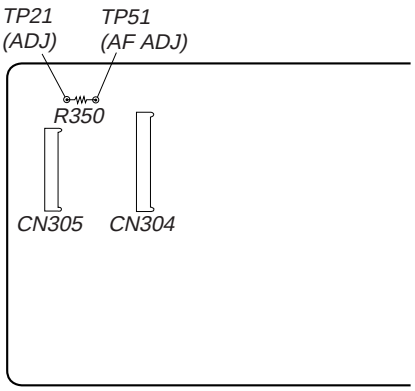


7. Press the “9” button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 6.



8. Disconnect the lead wire of TP21 (ADJ) connected in step 2.

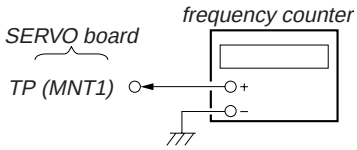
[MAIN BOARD] — (Component Side) —



RF PLL Free-run Frequency Check

Procedure :

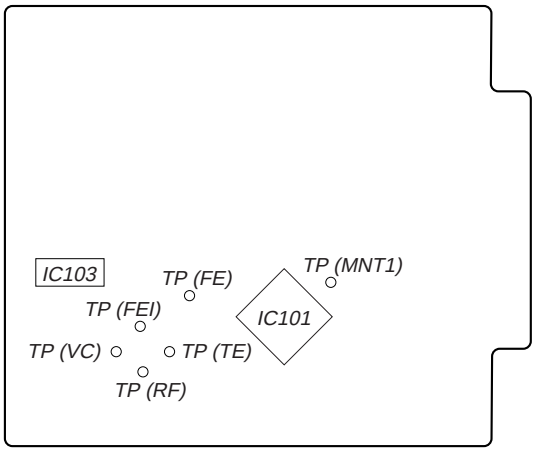
1. Connect frequency counter to test point TP (MNT1) with lead wire.



2. Connect the TP21(ADJ) terminal to the Ground and Turn ⏻ (power) switch on. (ADJ mode)
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MH ±30kHz.
4. Disconnect the lead wire of TP1. (ADJ)

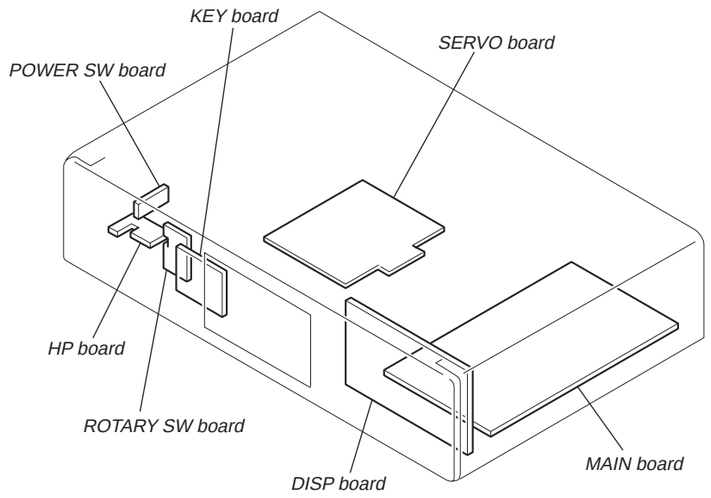
Adjustment Location :

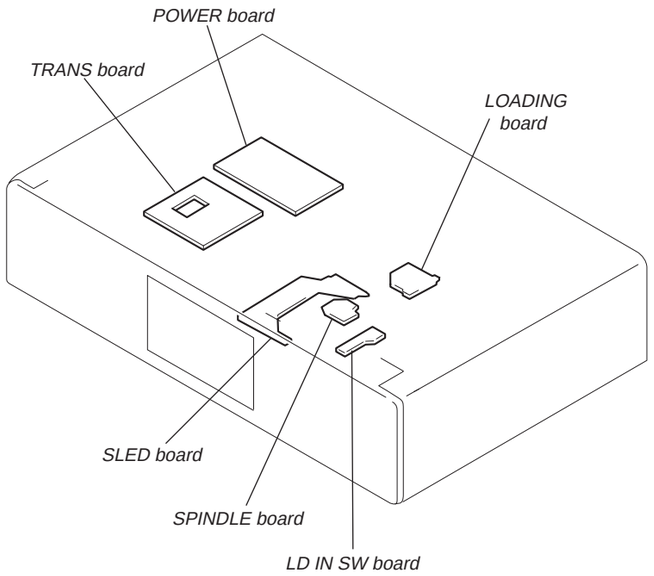
[SERVO BOARD] — Side A —



SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION





THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this necessary note is printed in each block.)

For schematic diagrams.
Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

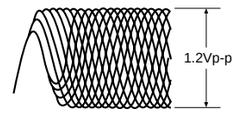
- B+ : B+ Line.
- B– : B– Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
- Circled numbers refer to waveforms.
- Signal path.
  : CD
  : DIGITAL OUT

For printed wiring boards.
Note:

- ○——○ : parts extracted from the component side.
- ○ : Through hole.
- △ : internal component.
- : Pattern from the side which enables seeing.

• Waveform

① TP1 (RF)



(PLAY)

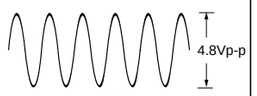
② CN304 ⑪

16.9344MHz

③ IC301㊹ (128FSO)

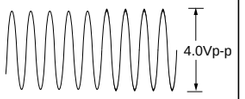
5.6448MHz
(128Fs)

④ IC301㉘ (XOUT)



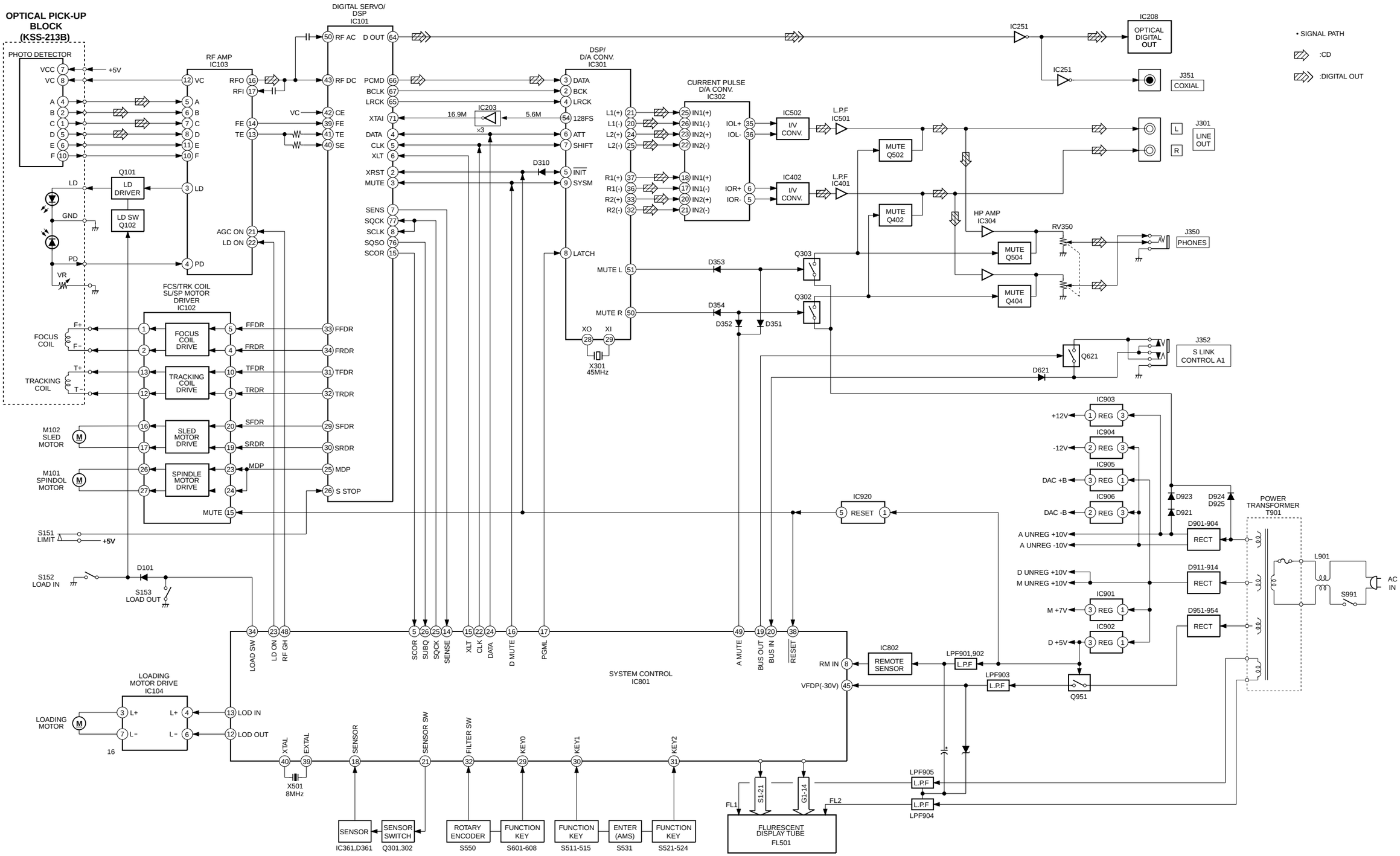
45MHz

⑤ IC801㊴ (EXTAL)



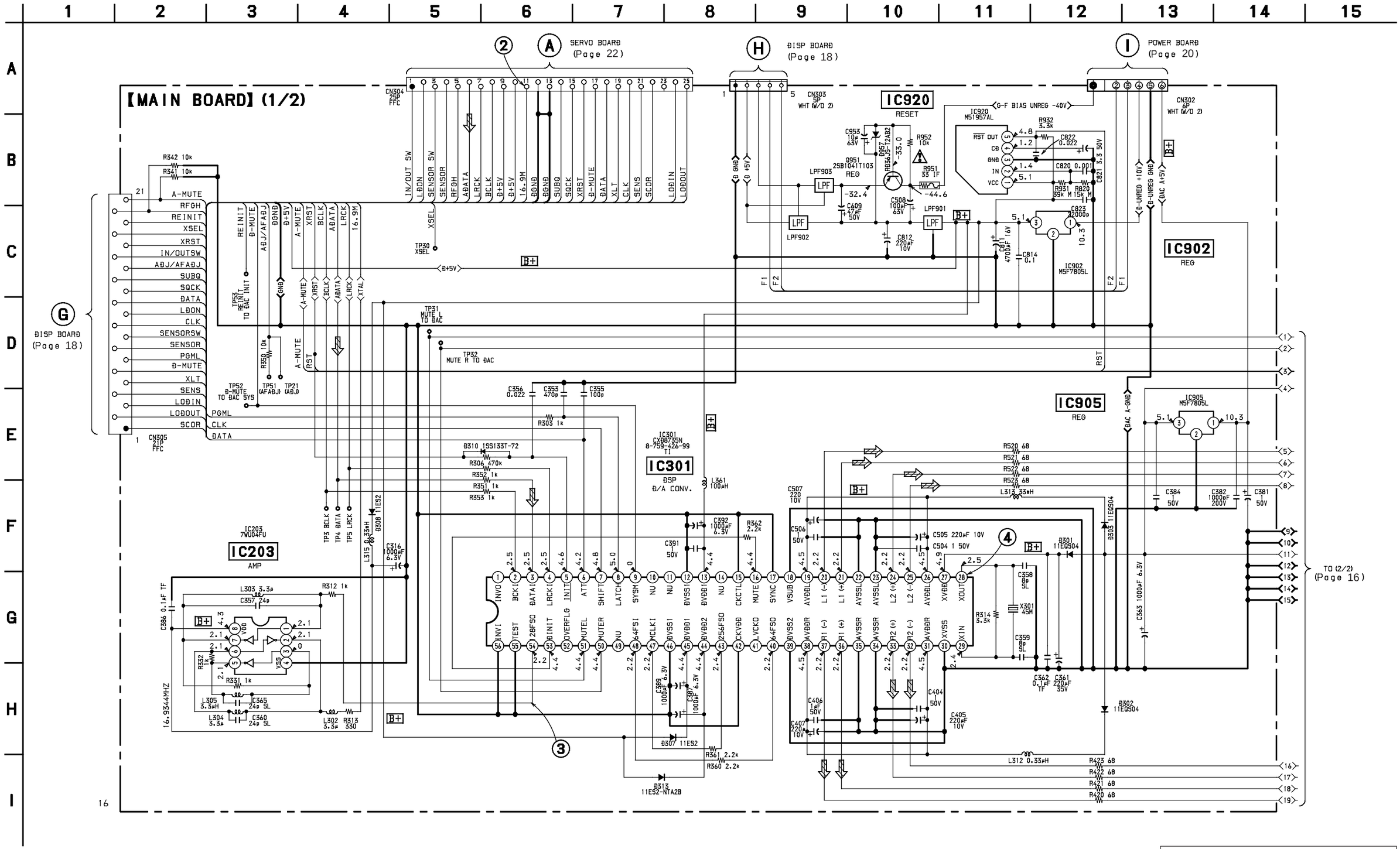
8MHz

6-2. BLOCK DIAGRAM



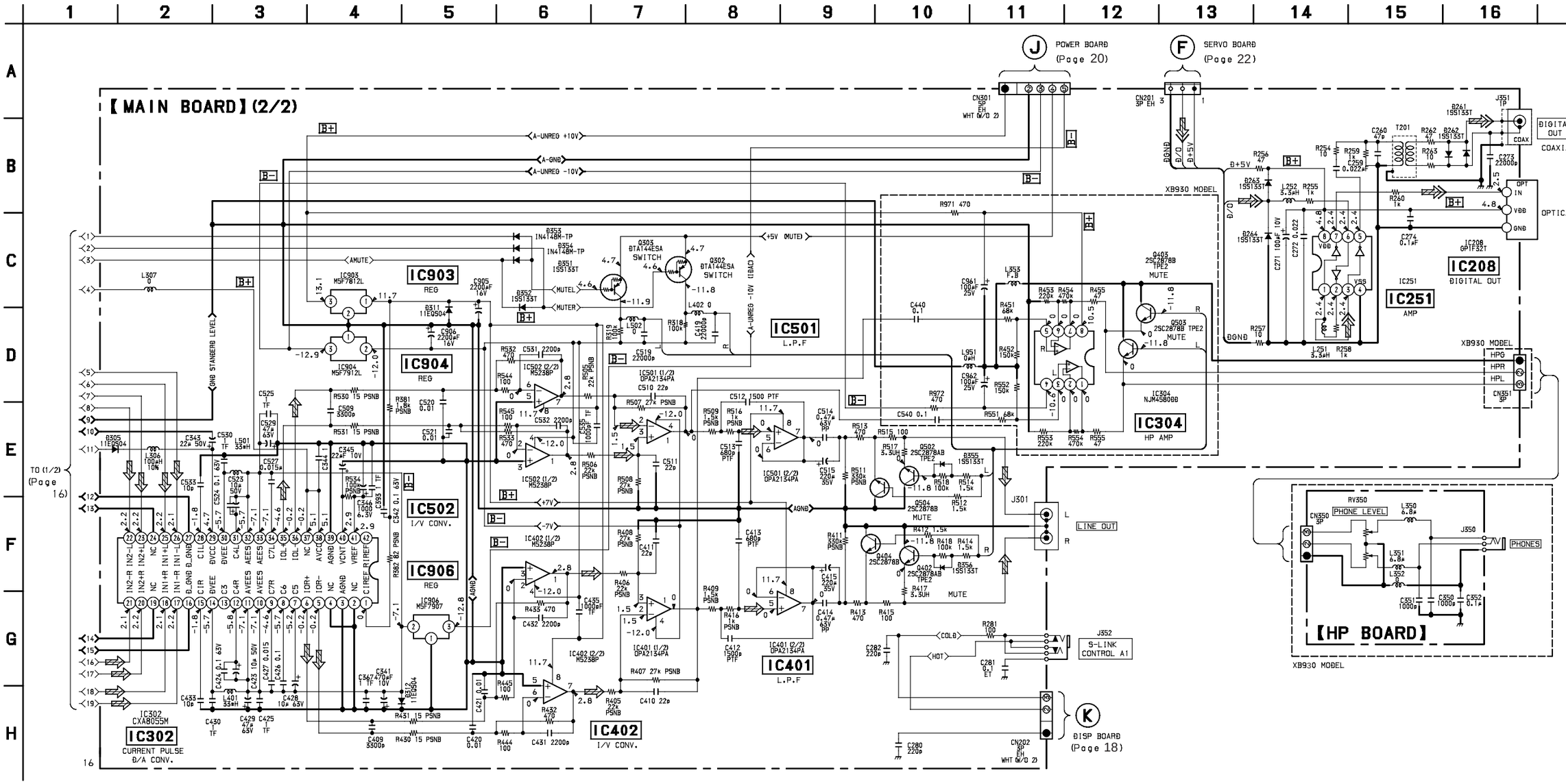
6-3. SCHEMATIC DIAGRAM MAIN SECTION (1/2)

• Refer to page 13 for Waveforms. • Refer to page 25 for IC Block Diagram.


【MAIN BOARD】(1/2)
SERVO BOARD (Page 22)
DISP BOARD (Page 18)
POWER BOARD (Page 20)
IC920 RESET
IC902 REG
IC905 REG
IC301 DSP Ð/A CONV.
IC203 AMP
TO (2/2) (Page 16)
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

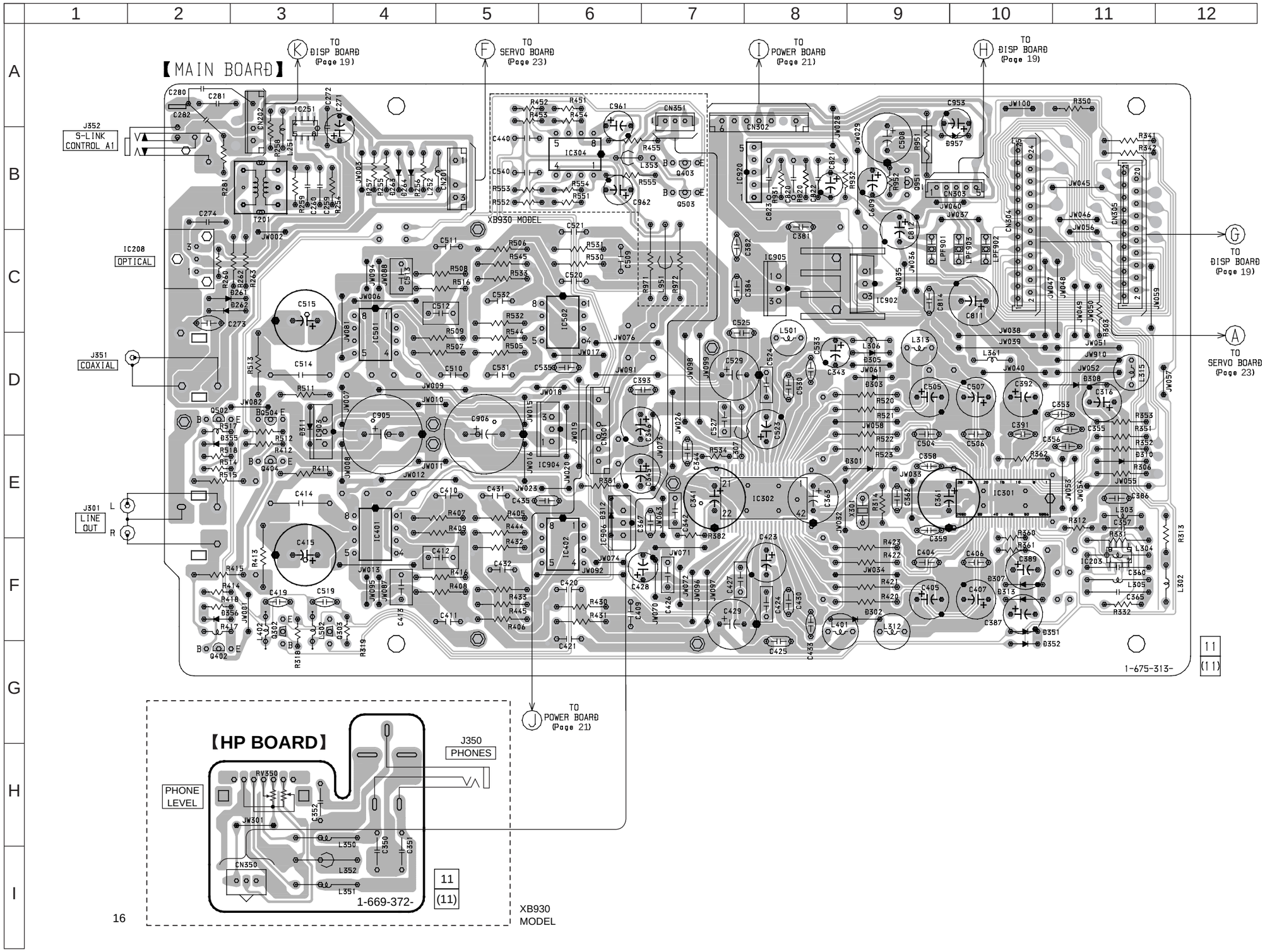
6-4. SCHEMATIC DIAGRAM MAIN SECTION (2/2)

• Refer to page 25 for IC Block Diagram.



6-5. PRINTED WIRING BOARDS MAIN SECTION

• Refer to page 13 for Circuit Boards Location.

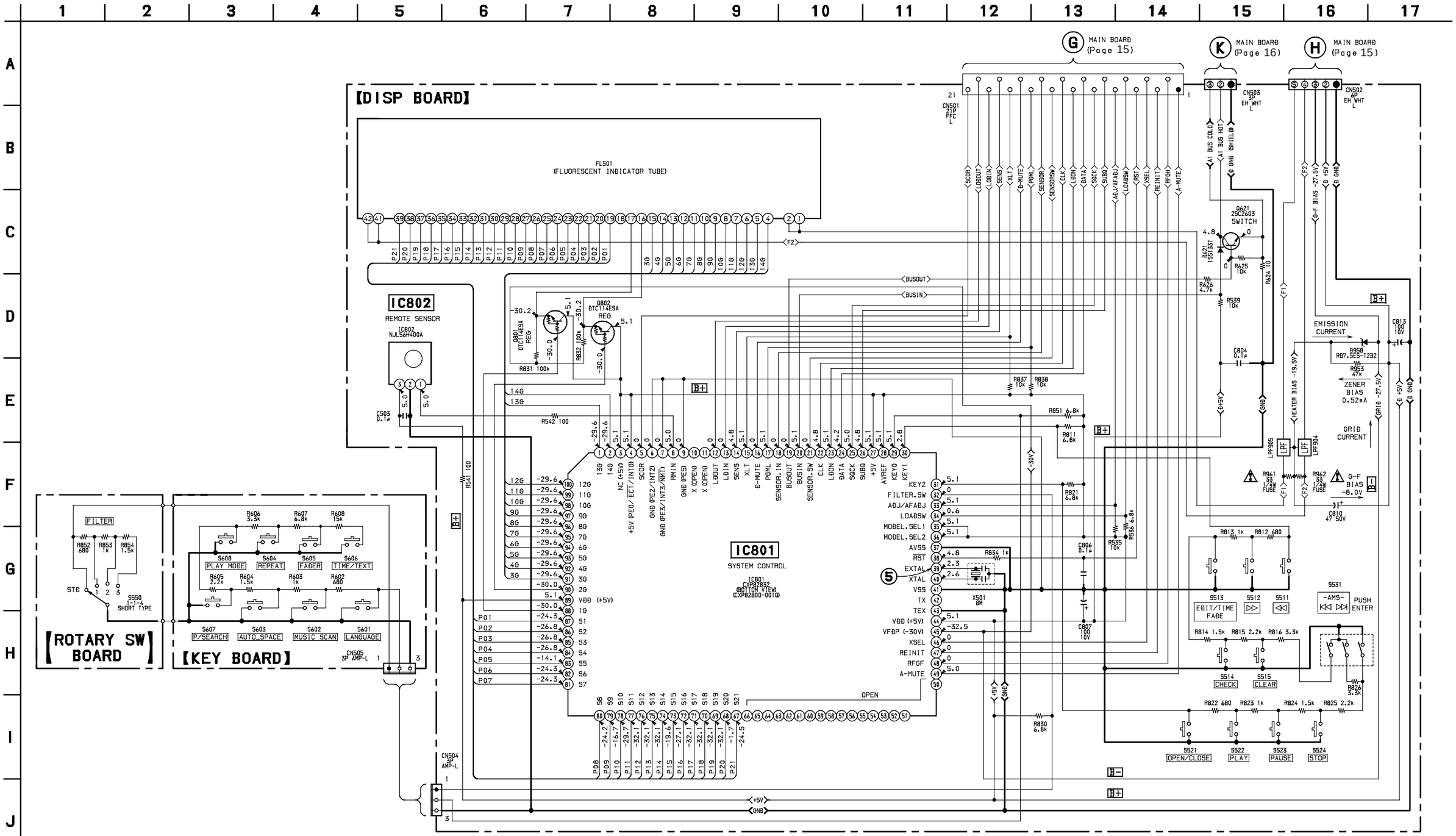


• **Semiconductor Location**

Ref. No.	Location
D261	C-3
D262	C-3
D263	B-4
D264	B-4
D301	E-9
D302	F-9
D303	D-9
D305	D-9
D306	D-10
D307	D-11
D308	D-11
D310	E-11
D311	D-3
D312	E-6
D351	F-11
D352	G-11
D353	F-11
D354	F-11
D355	E-2
D356	F-2
D957	B-10
IC203	F-11
IC208	C-2
IC251	B-3
IC301	E-10
IC302	E-8
IC304	B-6
IC401	F-4
IC402	F-6
IC501	D-4
IC502	C-6
IC902	C-9
IC903	D-3
IC904	E-6
IC905	C-8
IC906	F-6
IC920	B-8
Q302	G-3
Q303	G-3
Q402	G-2
Q403	B-7
Q502	D-2
Q503	B-7
Q951	B-9

6-6. SCHEMATIC DIAGRAM DISPLAY SECTION

• Refer to page 13 for Waveforms. • Refer to page 27 for IC Pin Function Description.



16

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

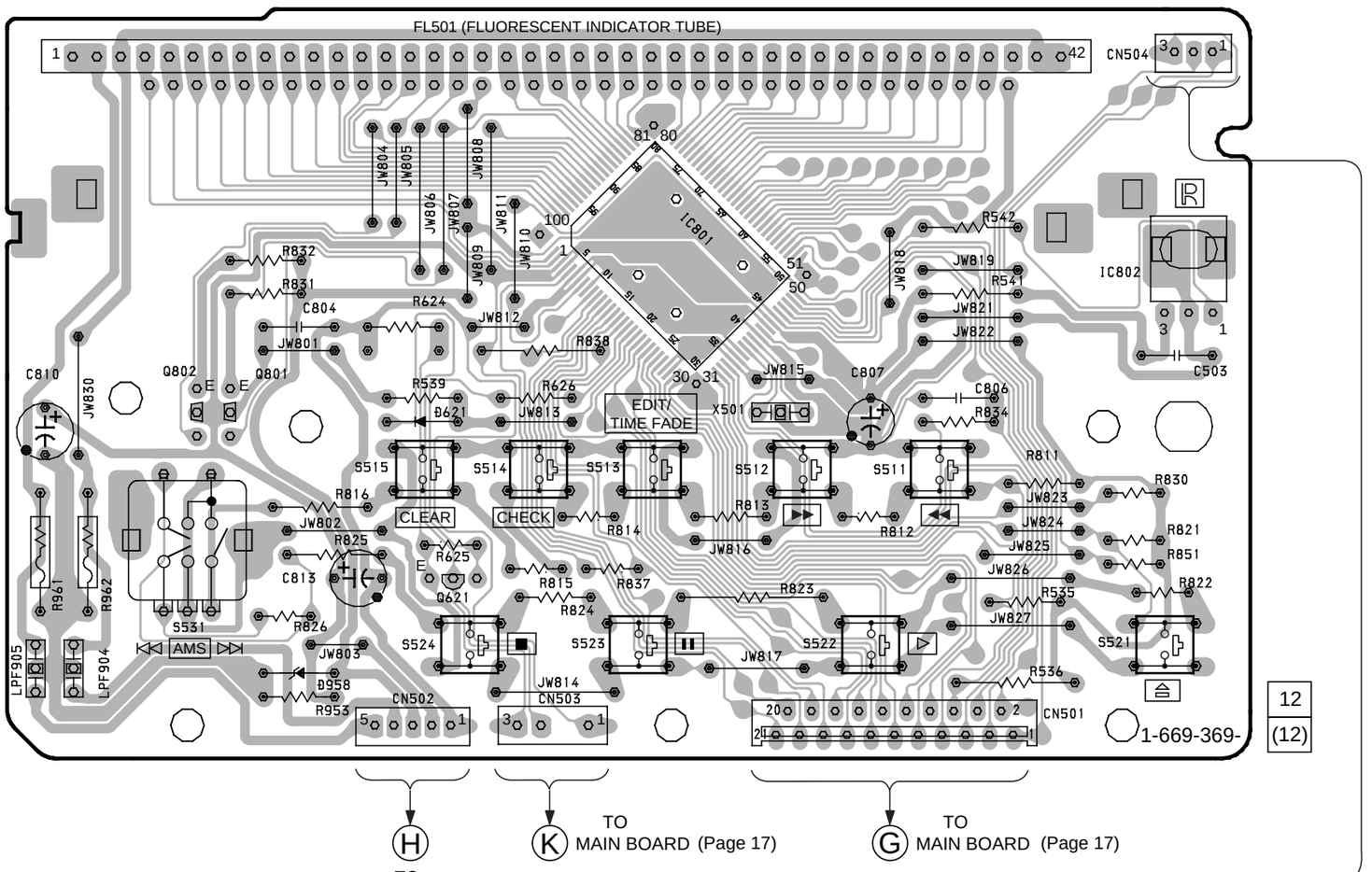
6-7. PRINTED WIRING BOARDS DISPLAY SECTION

• Refer to page 13 for Circuit Boards Location.

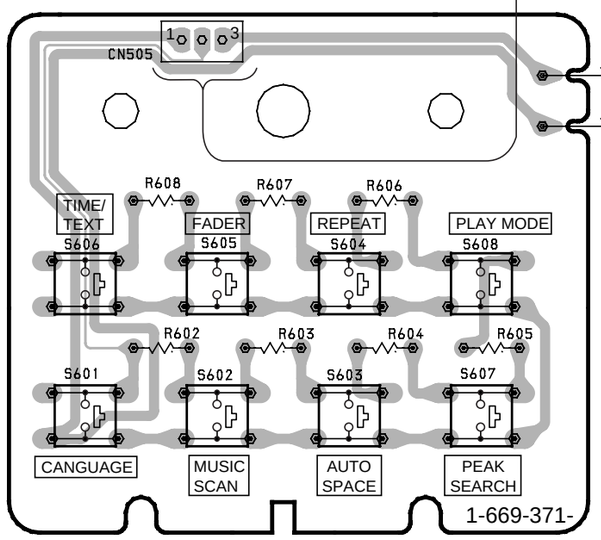
• **Semiconductor Location**

Ref. No.	Location
D621	D-4
D958	E-3
IC801	C-5
IC802	C-9
Q621	E-4
Q801	C-3
Q802	C-2

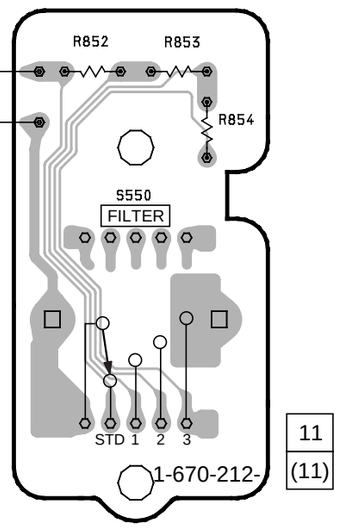
【DISP BOARD】



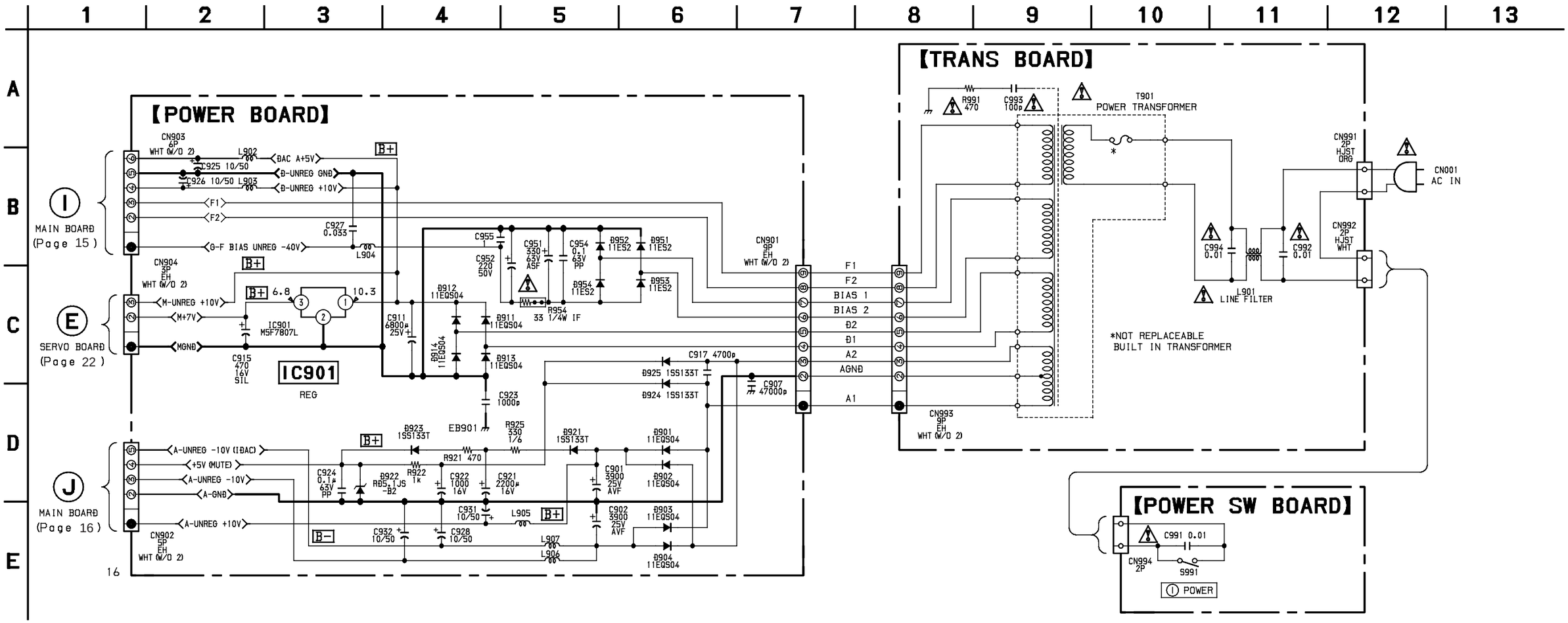
【KEY BOARD】



【ROTARY SW BOARD】



6-8. SCHEMATIC DIAGRAM POWER SECTION

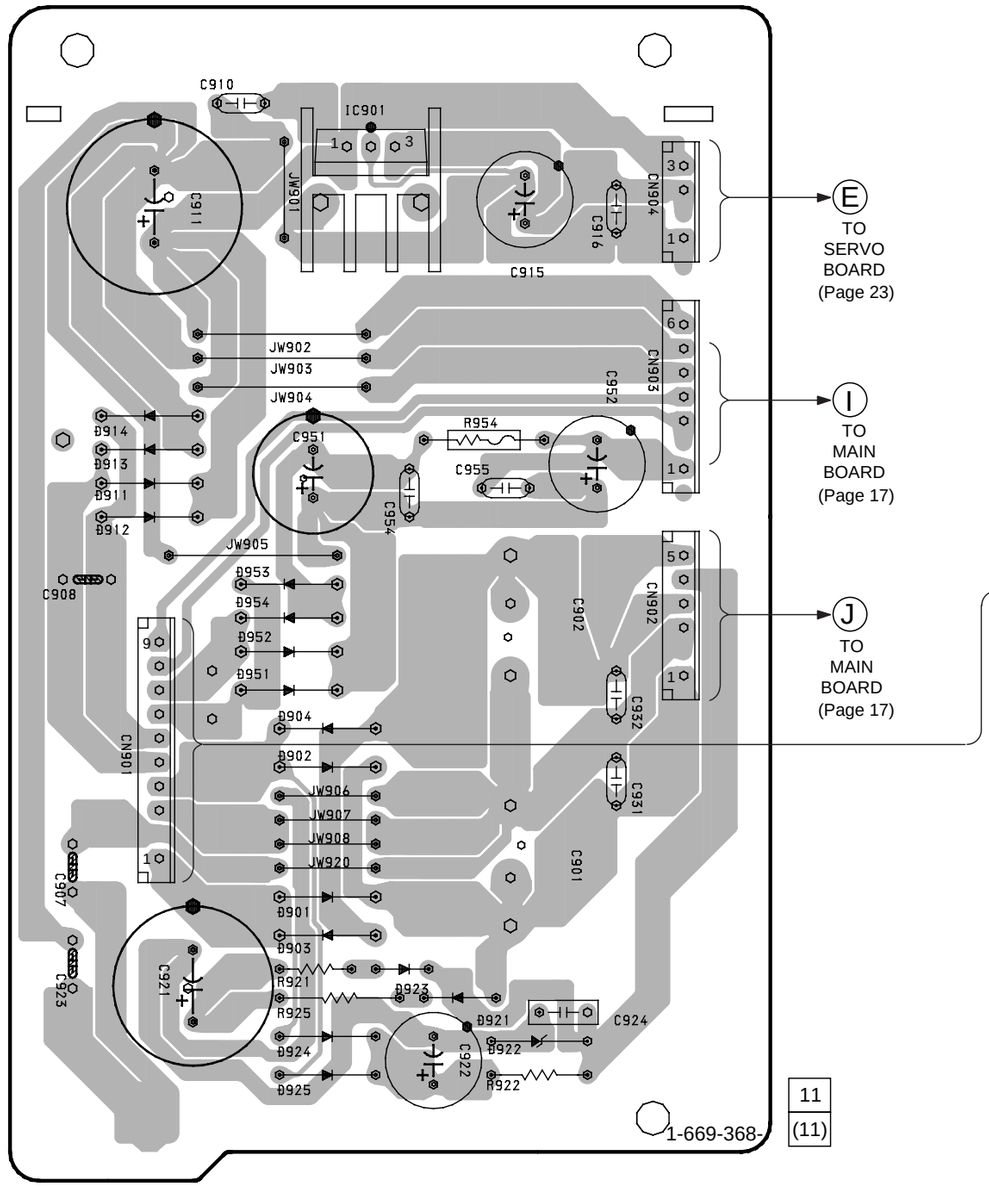


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

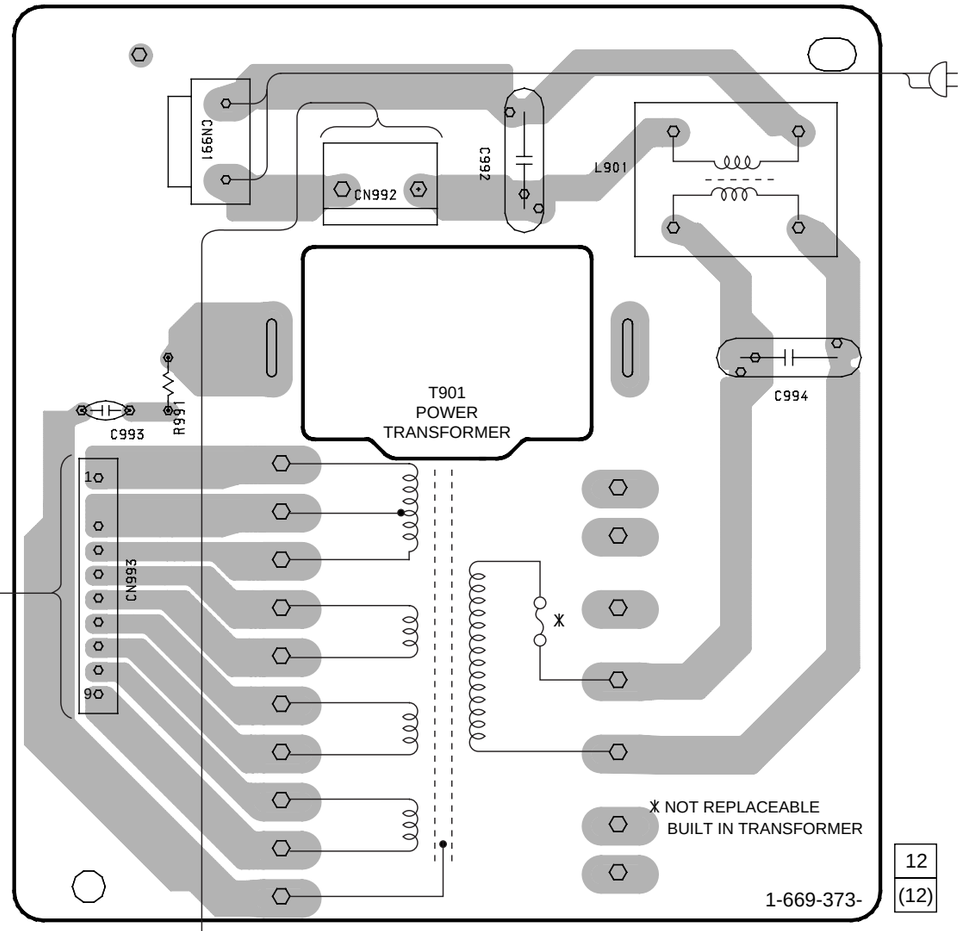
6-9. PRINTED WIRING BOARDS POWER SECTION

• Refer to page 13 for Circuit Boards Location.

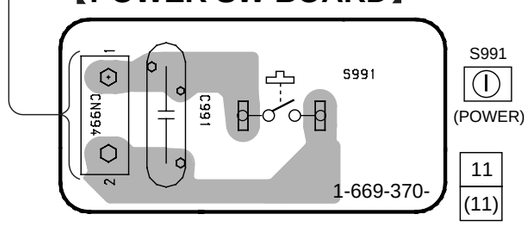
【POWER BOARD】



【TRANS BOARD】



【POWER SW BOARD】

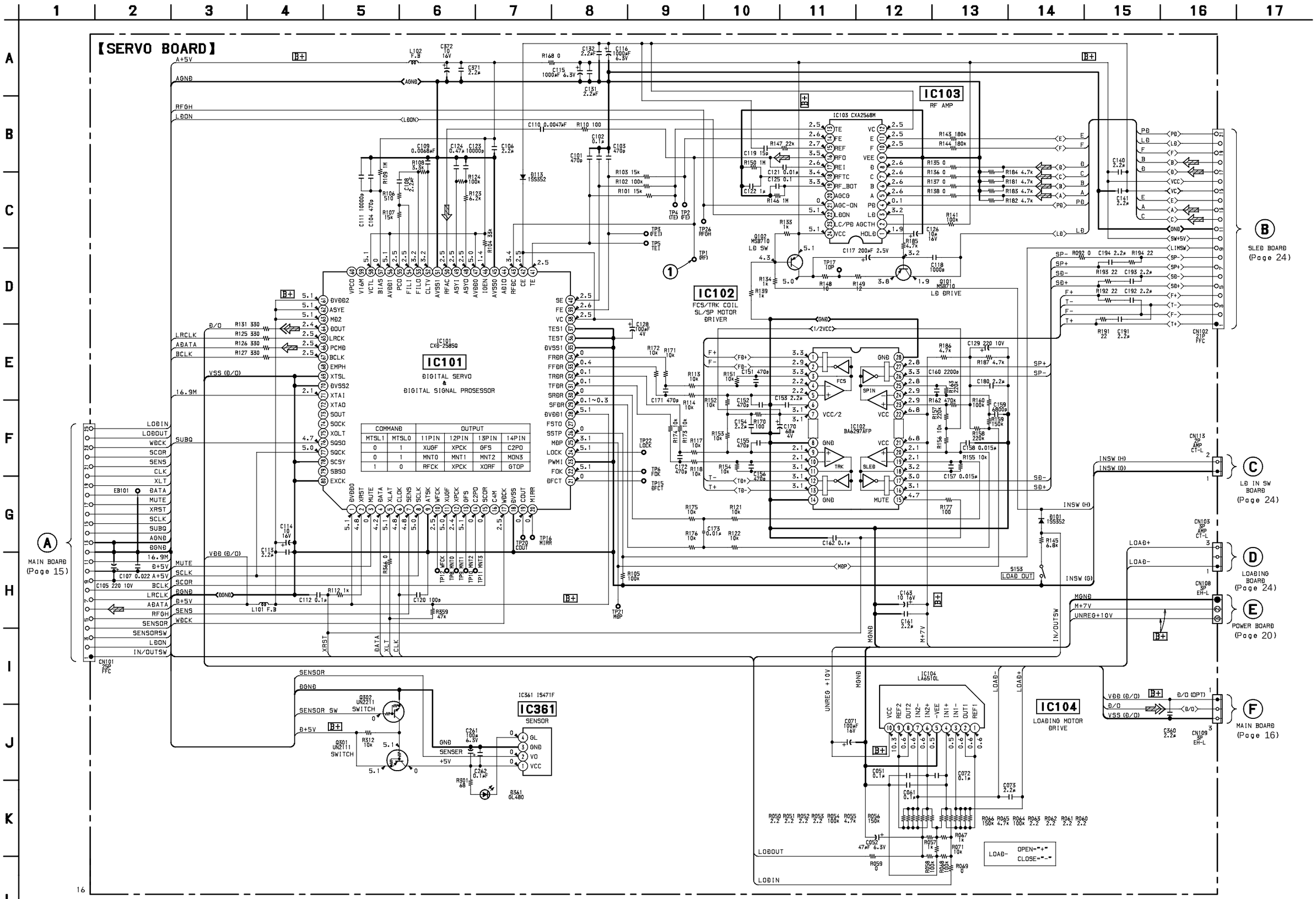


• Semiconductor Location

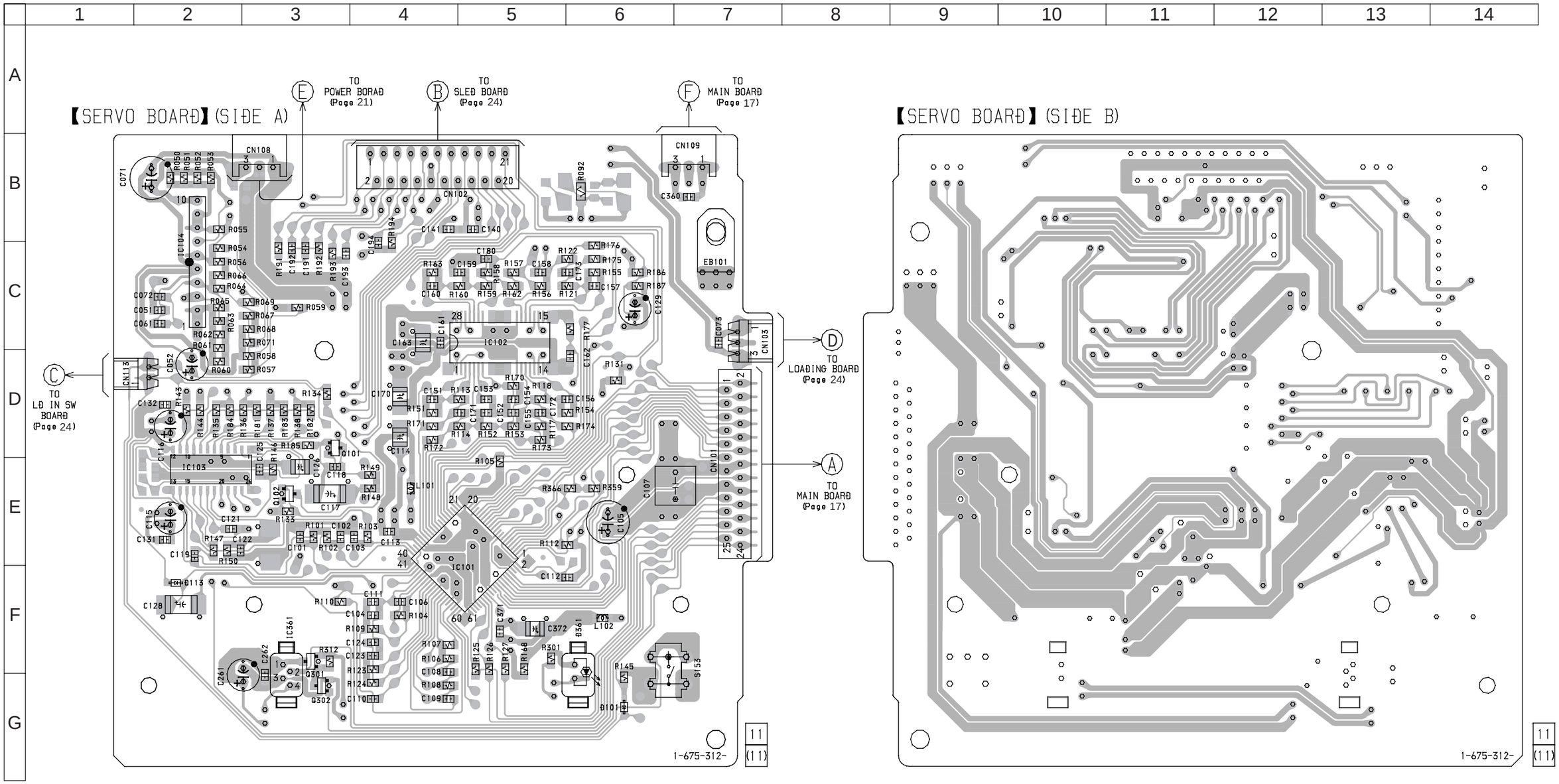
Ref. No.	Location
D901	F-3
D902	F-3
D903	G-3
D904	E-3
D911	D-2
D912	D-2
D913	D-2
D914	C-2
D921	G-4
D922	G-4
D923	G-3
D924	G-3
D925	H-3
D951	E-3
D952	E-3
D953	D-3
D954	E-3
IC901	B-3

6-10. SCHEMATIC DIAGRAM SERVO SECTION

• Refer to page 13 for Waveforms. • Refer to page 26 for IC Block Diagram • Refer to page 27 for IC Pin Function Description.



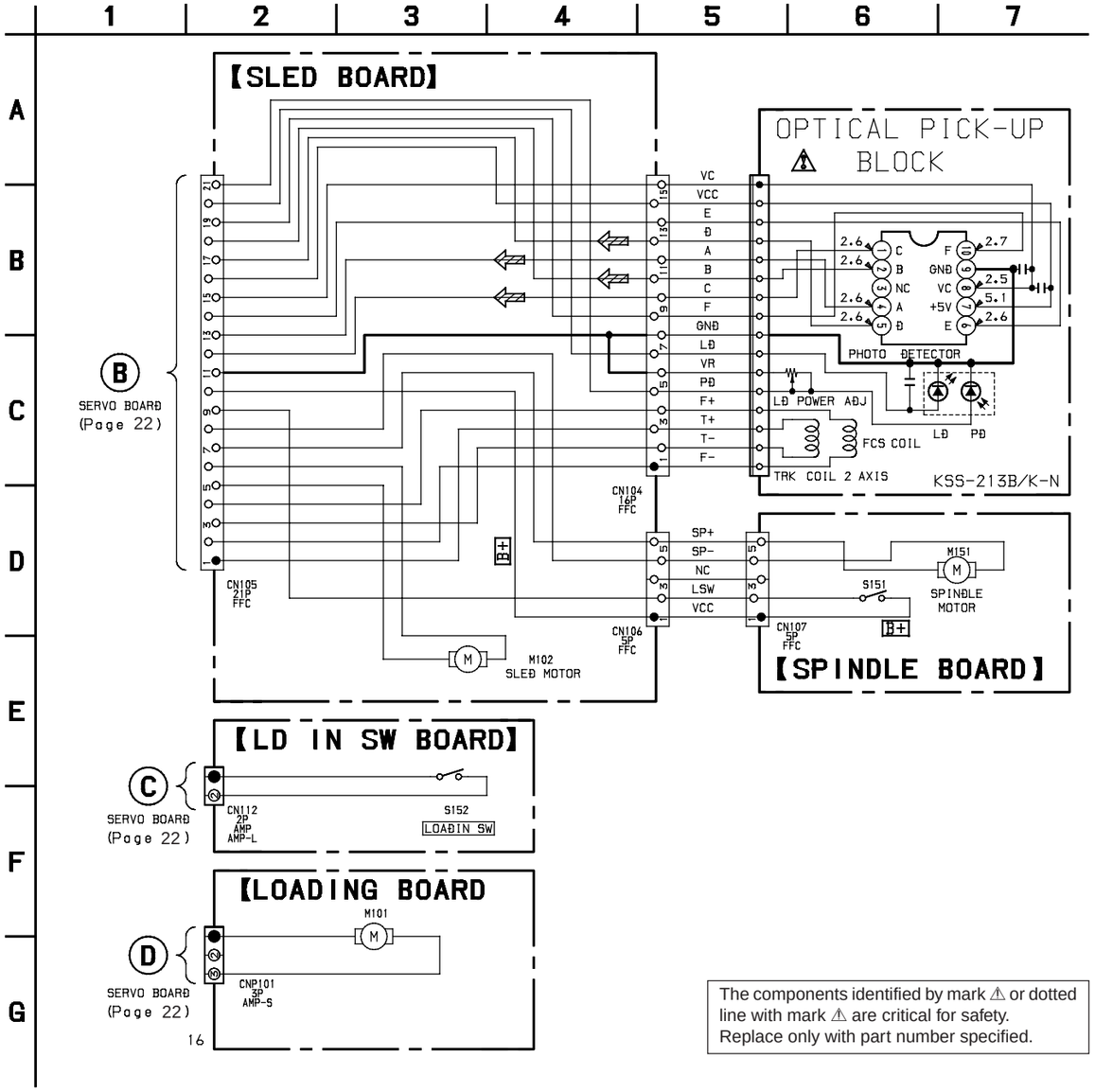
6-11. PRINTED WIRING BOARDS SERVO SECTION • Refer to page 13 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D101	G-6
D361	G-5
IC101	E-4
IC102	C-5
IC103	E-2
IC104	C-2
IC361	F-3
Q101	D-3
Q102	E-3
Q301	F-3
Q302	G-3

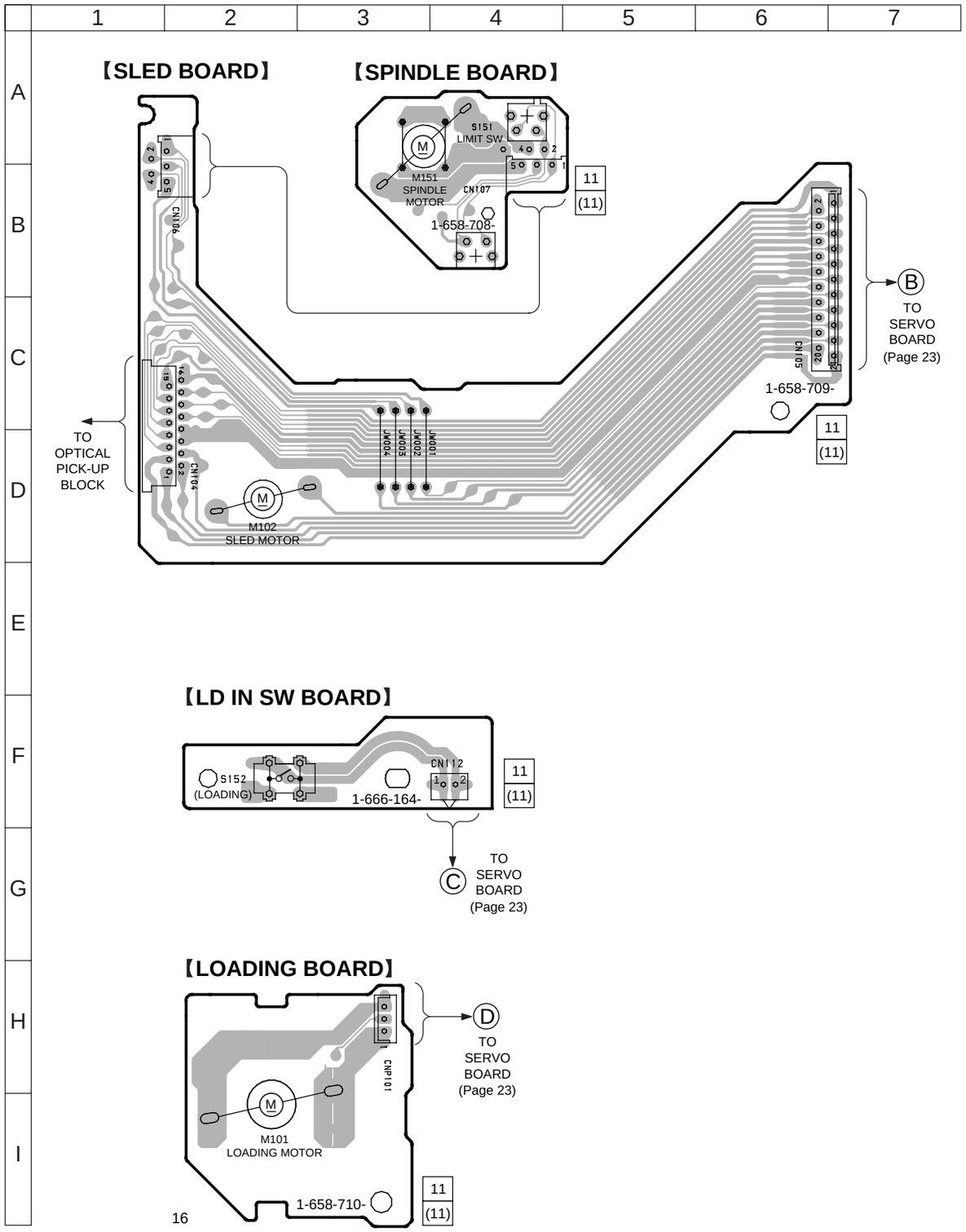
6-12. SCHEMATIC DIAGRAM MOTOR SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

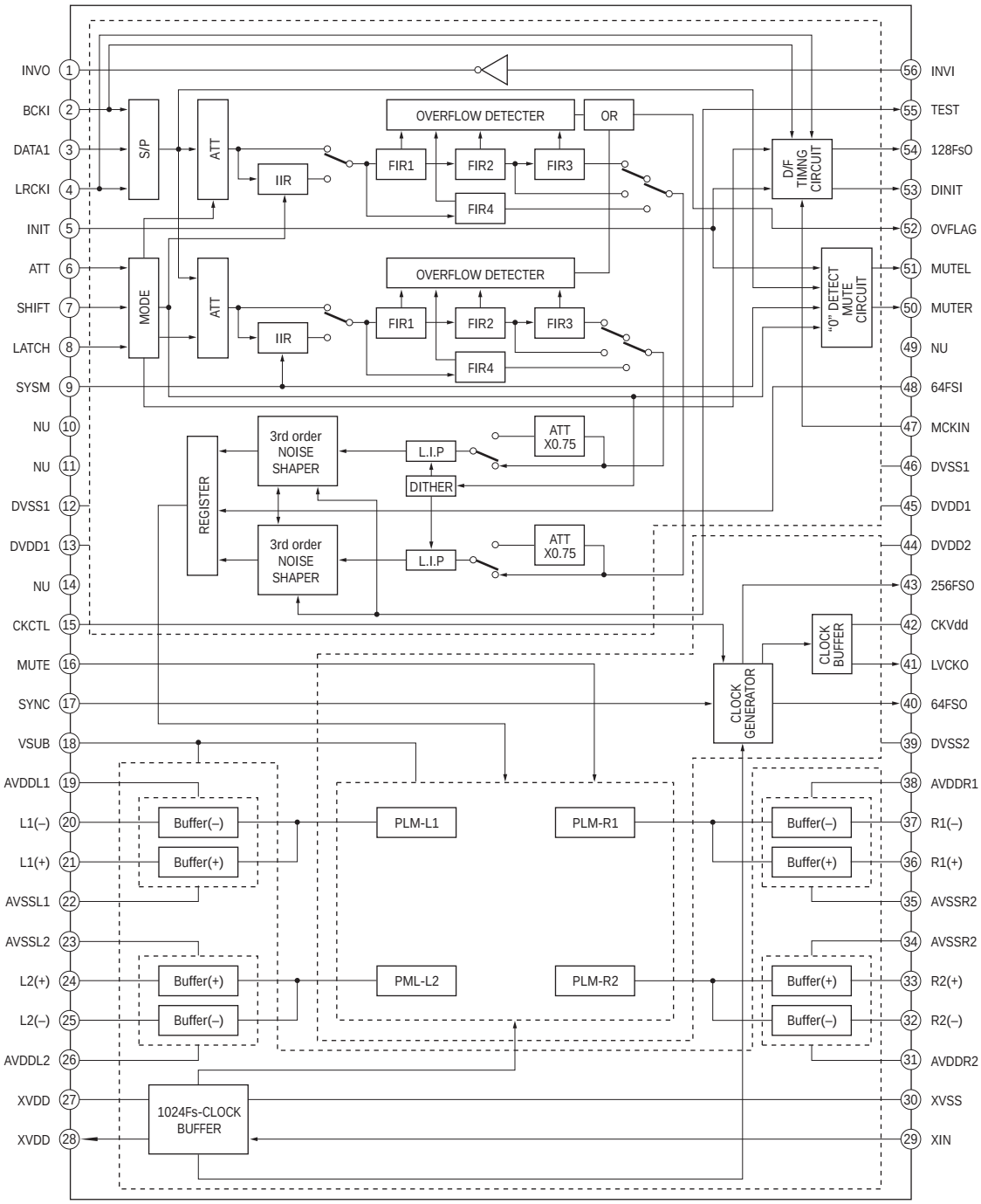
6-13. PRINTED WIRING BOARDS MOTOR SECTION

• Refer to page 13 for Circuit Boards Location.

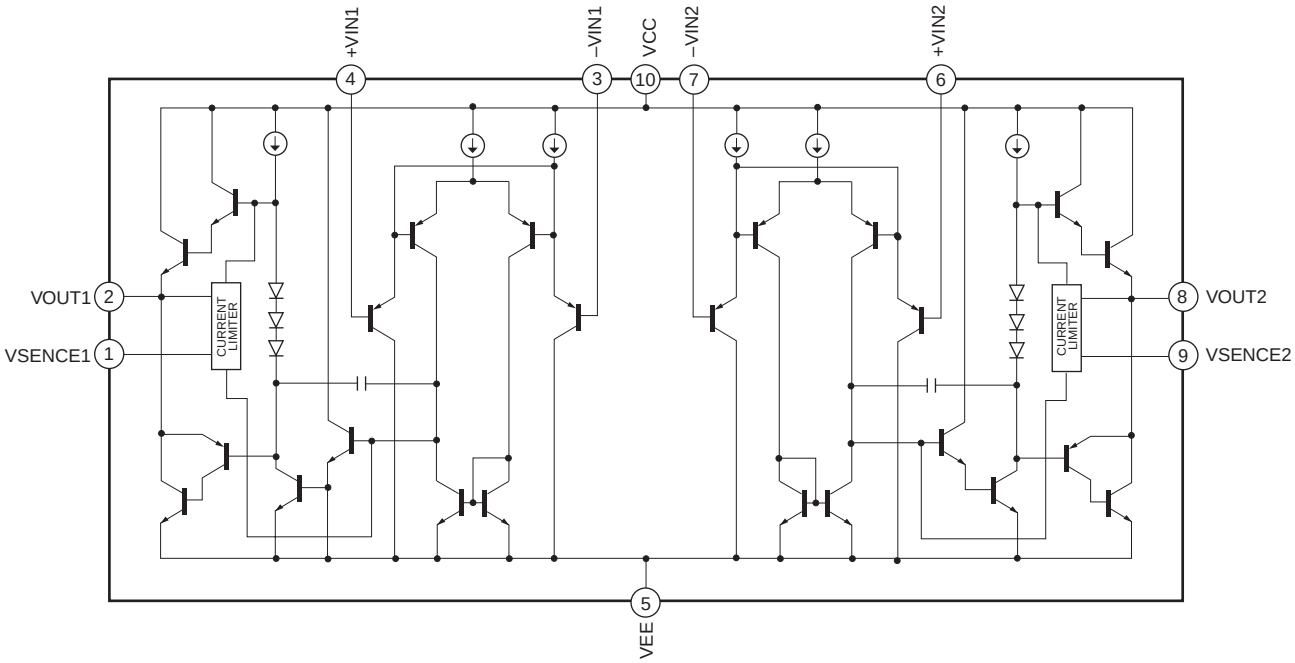


6-14. IC BLOCK DIAGRAMS

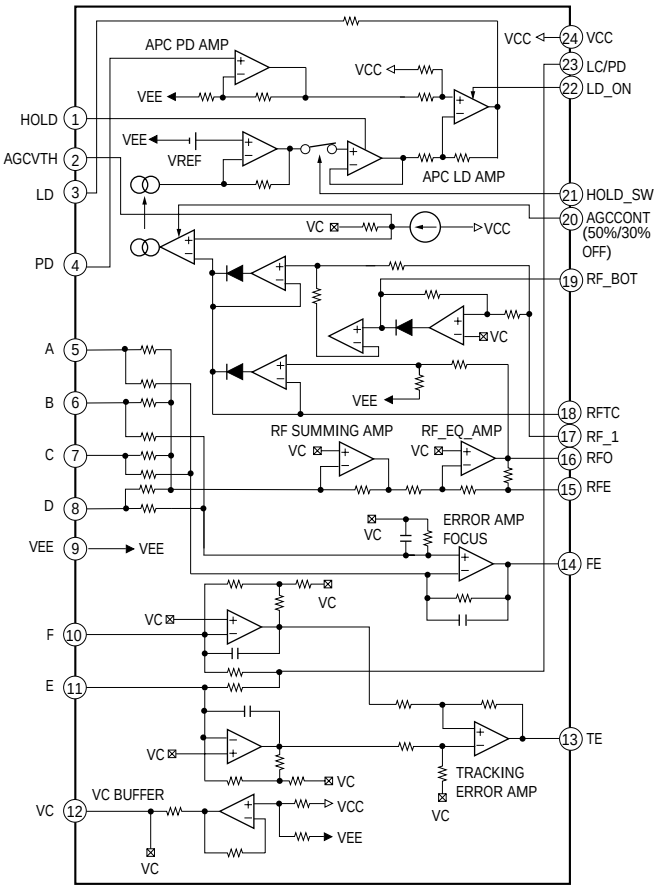
IC301 CXD8735N (MAIN BOARD)



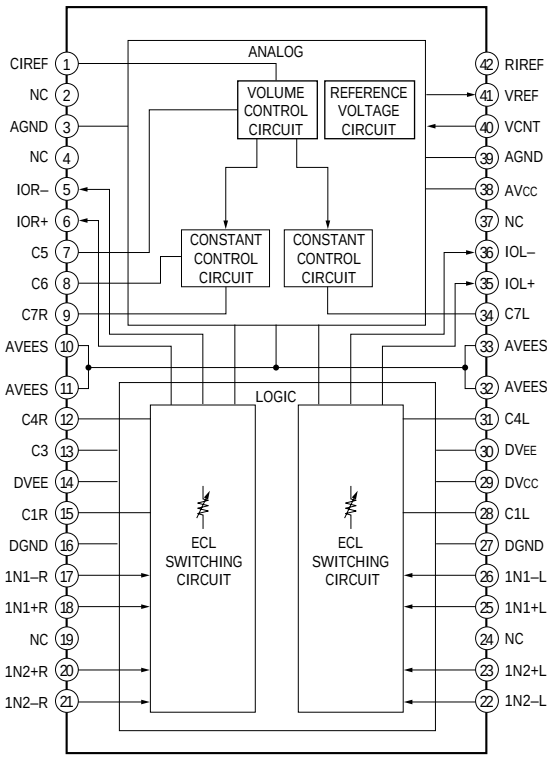
IC104 LA6510L (SERVO BOARD)



IC103 CXA2568M (SERVO BOARD)



IC302 CXA8055M (MAIN BOARD)



6-15. IC PIN FUNCTION DESCRIPTION

• IC 101 DIGITAL SIGNAL PROCESSOR (CXD2585Q) (SERVO board)

Pin No.	Pin Name	I/O	Description
1	DVDD	—	Digital power supply
2	XRST	I	System reset "L" : reset
3	MUTE	I	Muting input "H" : mute
4	DATA	I	Serial data input, supplied from CPU
5	XLAT	I	Latch input, supplied from CPU
6	CLOK	I	Serial data transfer clock input, supplied from CPU
7	SENS	O	SENS signal output to CPU
8	SCLK	I	SENS serial data read-out clock input
9	ATSK	I	Input pin for anti-shock (Connected to GND)
10	WFCK	O	WFCK output (Not used)
11	XUGF	O	Not used
12	XPCK	O	Not used
13	GFS	O	Not used
14	C2PO	O	Not used
15	SCOR	O	Sub-code sync output
16	CM4	O	4.2336 MHz output (Not used)
17	WDCK	O	Word clock output (f=2fs)
18	DVSS	—	Digital GND
19	COUT	I/O	Numbers of track counted signal input/output (Not used)
20	MIRR	I/O	Mirror signal input/output
21	DFCT	I/O	Defect signal input/output
22	FOK	I/O	Focus OK input/output
23	PWMI	I	Spindle motor external control input (Connected to GND)
24	LOCK	I/O	GFS is sampled by 460 Hz. H when GFS is H (Not used)
25	MDP	O	Output to control spindle motor servo
26	SSTP	I	Input signal to detect disc inner most track
27	FSTO	O	2/3 divider output of pin 71
28	DVDD1	—	Digital power supply
29	SFDR	O	Sled drive output
30	SRDR	O	Sled drive output
31	TFDR	O	Tracking drive output
32	TRDR	O	Tracking drive output
33	FFDR	O	Focus drive output
34	FRDR	O	Focus drive output
35	DVSS1	—	Digital GND
36	TEST	I	TEST pin connected normally to GND
37	TES1	I	TEST pin connected normally to GND
38	VC	I	Center voltage input pin
39	FE	I	Focus error signal input
40	SE	I	Sled error signal input

• Abbreviation
GFS : Guarded Frame Sync

Pin No.	Pin Name	I/O	Description
41	TE	I	Tracking error signal input
42	CE	I	Center servo analog input
43	RFDC	I	RF signal input
44	ADIO	O	Test pin (Not used)
45	AVSS0	—	Analog GND
46	IGEN	I	Stabilized current input for operation amplifiers
47	AVDD0	—	Analog power supply
48	ASYO	O	EFM full swing output
49	ASYI	I	Asymmetry comparate voltage input
50	RFAC	I	EFM signal input
51	AVSS1	—	Analog GND
52	CLTV	I	Control voltage input for master VCO1
53	FILO	O	Filter output for master PLL
54	FILI	I	Filter input for master PLL
55	PCO	O	Charge-pump output for master PLL
56	AVDD1	—	Analog power supply
57	BIAS	I	Asymmetry circuit constant current input
58	VCTL	I	VCO2 control voltage input for wide band EFM PLL (Connected to VDD)
59	V16M	I/O	VCO2 oscillator input/output for wide band EFM PLL (Not used)
60	VPCO	O	Charge -pump output for wide band EFM PLL (Not used)
61	DVDD2	—	Digital power supply
62	ASYE	I	Asymmetry circuit ON/OFF input " L" : OFF, "H" : ON (Connected to VDD)
63	MD2	I	Digital-out ON/OFF control input (Connected to VDD)
64	DOUT	O	Digital-out output pin
65	LRCK	O	D/A interface LR clock output (f=Fs)
66	PCMD	O	D/A interface serial data output
67	BCLK	O	D/A interface bit clock output
68	EMPH	O	Playback disc output in emphasis mode (Not used)
69	XTSL	I	X'tal selection input (Connected to ground)
70	DVSS2	—	Digital GND
71	XTAI	I	X'tal oscillator circuit input
72	XTAO	O	X'tal oscillator circuit output (Not used)
73	SOUT	O	Serial data output in servo block (Not used)
74	SOCK	O	Serial data read clock output in servo block (Not used)
75	XOLT	O	Serial data latch output in servo block (Not used)
76	SQSO	O	Sub-Q 80-bit and PCM peak level data output (CD text data output)
77	SQCK	I	Clock input for SQSO read-out
78	SCSY	I	Connected to GND
79	SBSO	O	Sub-P through Sub-W serial output (Not used)
80	EXCK	I	Clock input for SBSO read-out (Connected to GND)

• Abbreviation
EFM : Eight to Fourteen Modulation
PLL : Phase Locked Loop

• **IC 801 (SYSTEM CONTROL) CXP82832-017Q (DISP board)**

Pin No.	Pin Name	I/O	Description
1	13G	O	Fluorescent display tube grid 13 output
2	14G	O	Fluorescent display tube grid 14 output
3	NC (+5V)	—	Not used. Connected to 5V
4	+5 V (PEO/$\overline{EC1}$/1NT0)	—	Not used. Connected to 5V
5	SCOR	I	Signal processing IC data sync input
6	GND (PE2/1NT2)	—	Not used. Connected to GND
7	GND (PE3/1NT3/$\overline{NM1}$)	—	Not used. Connected to GND
8	RMIN	I	Remote control input
9	GND (PE5)	—	Not used. Connected to GND
10	X (OPEN)	—	Not used. Open
11	X (OPEN)	—	Not used. Open
12	LDOUT	O	Loading OUT direction output
13	LDIN	O	Loading IN direction output
14	SENS	I	Signal processing IC SENSE input
15	XLT	O	Signal processing IC command latch output
16	D-MUTE	O	Signal processing IC mute output
17	PGML	O	D/F IC command latch output
18	SENSOR IN	I	Stabilizer detect sensor input
19	BUSOUT	O	Control A1 output
20	BUSIN	I	Control A1 input
21	SENSOR SW	I	stabilizer detect sensor switch
22	CLK	O	Signal processing IC command clock output
23	LDIN	O	Laser diode ON/OFF switching output
24	DATA	I	Signal processing IC data input
25	SQCK	O	Signal processing IC SUBQ read clock output
26	SUBQ	I	Signal processing IC SUBQ input
27	+5V	—	Terminal through 5V
28	AVREF	I	AD converter reference voltage input
29	Key 0	I	Key input
30	Key 1	I	Key input
31	Key 2	I	Key input
32	FILTER SW	I	D/F switching rotary switch input
33	ADJ/AFADJ	O	Normal/ADJ/AFADJ mode switching
34	LOADSW	I	Input of IN switch and OUT switch
35	MODEL SEL1	O	MODEL switching terminal (LL: XE520 LH: XB720 HL: XB820 HH: XB920)
36	MODEL SEL2	O	Model selector terminal (LL: XE520 LH: XB720 HL: XB820 HH: XB920)
37	AVSS	I	A/D converter GND input
38	$\overline{RST}$	I	Microprocessor reset input
39	EXTAL	—	8 MHz X'tal connection terminal
40	XTAL	—	8 MHz X'tal connection terminal
41	VSS	—	GND
42	TX	—	Not used. Open
43	TEX	—	Not used. Connected to GND
44	VDD (+5V)	—	5V supply terminal
45	VFDP (-30V)	—	Voltage supply terminal for option pulldown FDP
46	XSEL	—	Not used. Open
47	REINIT	—	Not used. Open
48	REGF	O	RF amplifier, laser power hold output
49	A-MUTE	—	Not used. Open
50	NC	—	Not used. Open

Pin No.	Pin Name	I/O	Description
51	NC	—	Not used. Open
52	NC	—	Not used. Open
53	NC	—	Not used. Open
54	NC	—	Not used. Open
55	NC	—	Not used. Open
56	NC	—	Not used. Open
57	NC	—	Not used. Open
58	NC	—	Not used. Open
59	NC	—	Not used. Open
60	NC	—	Not used. Open
61	NC	—	Not used. Open
62	NC	—	Not used. Open
63	NC	—	Not used. Open
64	NC	—	Not used. Open
65	NC	—	Not used. Open
66	NC	—	Not used. Open
67	S21	O	Fluorescent display tube segment 21 output
68	S20	O	Fluorescent display tube segment 20 output
69	S19	O	Fluorescent display tube segment 19 output
70	S18	O	Fluorescent display tube segment 18 output
71	S17	O	Fluorescent display tube segment 17 output
72	S16	O	Fluorescent display tube segment 16 output
73	S15	O	Fluorescent display tube segment 15 output
74	S14	O	Fluorescent display tube segment 14 output
75	S13	O	Fluorescent display tube segment 13 output
76	S12	O	Fluorescent display tube segment 12 output
77	S11	O	Fluorescent display tube segment 11 output
78	S10	O	Fluorescent display tube segment 10 output
79	S9	O	Fluorescent display tube segment 9 output
80	S8	O	Fluorescent display tube segment 8 output
81	S7	O	Fluorescent display tube segment 7 output
82	S6	O	Fluorescent display tube segment 6 output
83	S5	O	Fluorescent display tube segment 5 output
84	S4	O	Fluorescent display tube segment 4 output
85	S3	O	Fluorescent display tube segment 3 output
86	S2	O	Fluorescent display tube segment 2 output
87	S1	O	Fluorescent display tube segment 1 output
88	1G	O	Fluorescent display tube Grid 1 output
89	VDD (+5V)	—	5 V, VDD
90	2G	O	Fluorescent display tube Grid 2 output
91	3G	O	Fluorescent display tube Grid 3 output
92	4G	O	Fluorescent display tube Grid 4 output
93	5G	O	Fluorescent display tube Grid 5 output
94	6G	O	Fluorescent display tube Grid 6 output
95	7G	O	Fluorescent display tube Grid 7 output
96	8G	O	Fluorescent display tube Grid 8 output
97	9G	O	Fluorescent display tube Grid 9 output
98	10G	O	Fluorescent display tube Grid 10 output
99	11G	O	Fluorescent display tube Grid 11 output
100	12G	O	Fluorescent display tube Grid 12 output

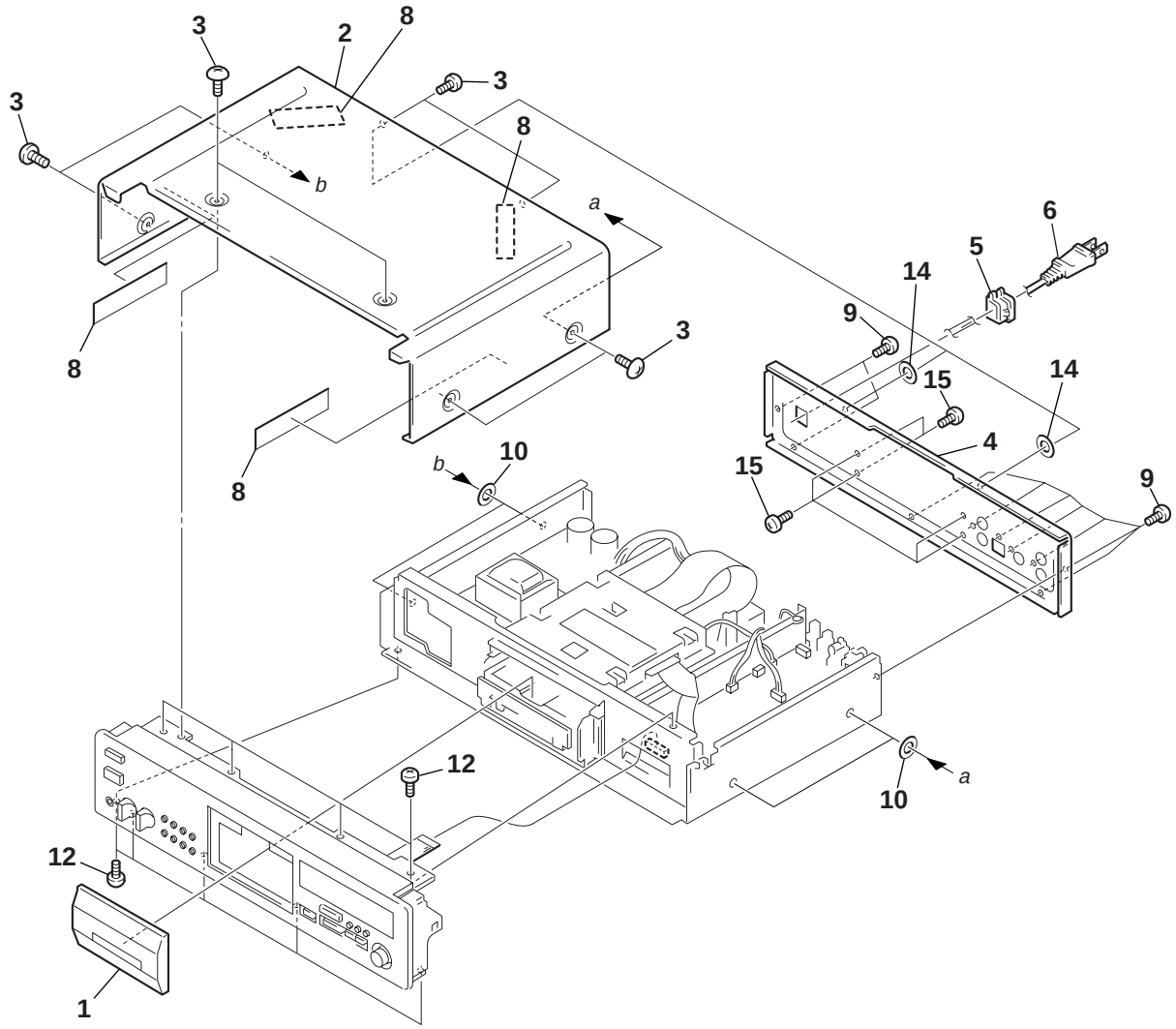
SECTION 7
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Abbreviation
  SP : Singapore model
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts of Color Cabinet's Color

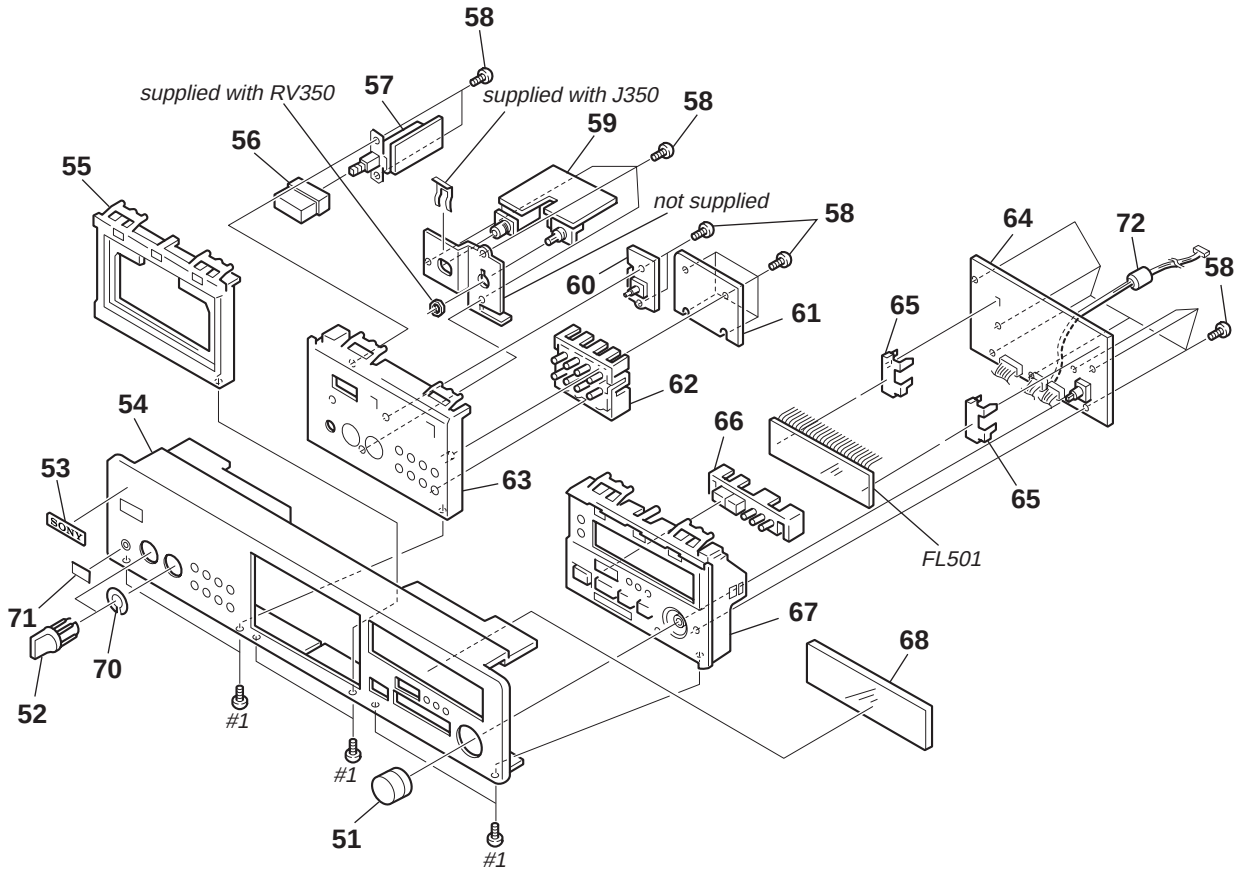
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

7-1. CASE SECTION



Ref. No.	Part No.	Description	Remarks
1	X-4949-884-1	PANELASSY, LOADING (BLACK)	
1	X-4950-218-1	PANELASSY, LOADIBG (SILVER)	
* 2	4-997-138-02	CASE(4095269) (BLACK)	
* 2	4-997-138-42	CASE(4095269) (SILVER)	
3	4-210-291-01	SCREW(CASE 3 TP2) (BLACK) (XB930)	
3	4-210-291-11	SCREW(CASE 3 TP2) (SILVER) (XB930)	
3	4-999-877-01	SCREW(CASE) (XB930E)	
4	4-219-772-03	PANEL, BACK (XB930)	
4	4-219-772-13	PANEL, BACK (XB930E:UK)	
4	4-219-772-22	PANEL, BACK (XB930E:SP)	
5	4-966-267-11	BUSHING (FBS001), CORD	
⚠6	1-575-651-21	CORD, POWER (XB930/XB930E:SP)	
⚠6	1-751-529-11	CORD, POWER (XB930E:UK)	
8	4-959-077-01	DAMPER	
9	3-704-515-21	SCREW(BV/RING) (XB930)	
9	3-704-515-41	SCREW(BV/RING) (XB930E)	
10	4-949-302-11	WASHER	
12	3-704-515-31	SCREW (BV/RING) (XB930)	
12	3-704-515-41	SCREW (BV/RING) (XB930E)	
14	4-945-438-21	SPACER (BOSS)	
15	4-222-671-01	SCREW (PWH3), STEP (XB930)	
15	4-222-671-11	SCREW (PWH3), STEP (XB930E)	

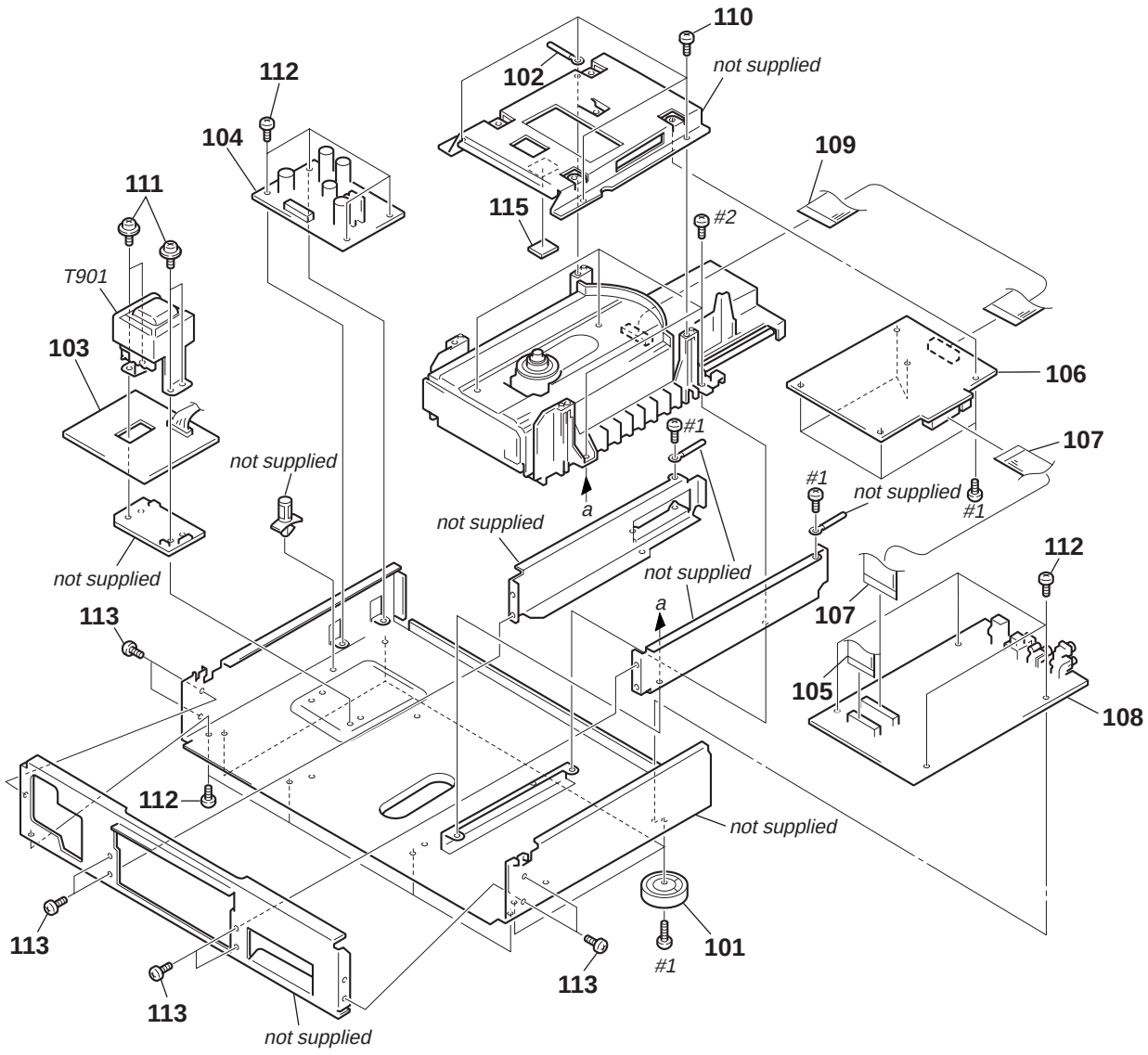
7-2. PANEL SECTION



Ref. No.	Part No.	Description	Remarks
51	4-996-687-51	KNOB(AMS) (BLACK)	
51	4-996-687-82	KNOB(AMS) (SILVER)	
52	4-950-189-01	KNOB(A) (VOL) (BLACK)	
52	4-950-189-61	KNOB(A) (VOL) (SILVER)	
53	4-942-568-41	EMBLEM (NO.5), SONY (BLACK)	
53	4-942-568-61	EMBLEM (NO.5), SONY (SILVER)	
54	4-997-199-62	PANEL, FRONT (BLACK) (XB930)	
54	4-997-199-72	PANEL, FRONT (SILVER) (XB930)	
54	4-997-199-81	PANEL, FRONT (BLACK) (XB930E)	
55	4-997-202-01	BASE(M1), PANEL (BLACK)	
55	4-997-202-32	BASE(M1), PANEL (SILVER)	
56	4-998-790-01	KNOB, POWER (BLACK)	
56	4-998-790-21	KNOB, POWER (SILVER)	
* 57	1-669-370-11	POWER SW BOARD	
58	4-951-620-01	SCREW (2.6 × 8), +BVTP	
* 59	1-669-372-11	HP BOARD (XB930)	
* 60	1-670-212-11	ROTARY SW BOARD	

Ref. No.	Part No.	Description	Remarks
* 61	1-669-371-11	KEY BOARD	
62	4-997-211-01	BUTTON (MODE) (BLACK)	
62	4-997-211-23	BUTTON (MODE) (SILVER)	
63	4-997-200-03	BASE(L), PANEL (BLACK)	
63	4-997-200-24	BASE(L), PANEL (SILVER)	
* 64	A-4724-932-A	DISP BOARD, COMPLETE	
* 65	4-997-495-01	GUIDE (FL)	
66	4-997-213-01	BUTTON (F.R) (BLACK)	
66	4-997-213-22	BUTTON (F.R) (SILVER)	
67	X-4949-458-1	BASE(R) ASSY, PANEL (BLACK)	
67	X-4950-217-1	BASE(R) ASSY, PANEL (SILVER)	
68	4-997-210-01	PLATE, INDICATION	
69	3-354-981-11	SPRING (SUS), RING	
70	4-948-469-01	SPRING, RING	
71	4-221-138-01	EMBLEM (UK) (XB930E:UK)	
72	1-500-249-11	BEAD, FERRITE (CASE)	
FL501	1-517-740-11	INDICATOR TUBE, FLUORESCENT	

7-3. MAIN SECTION

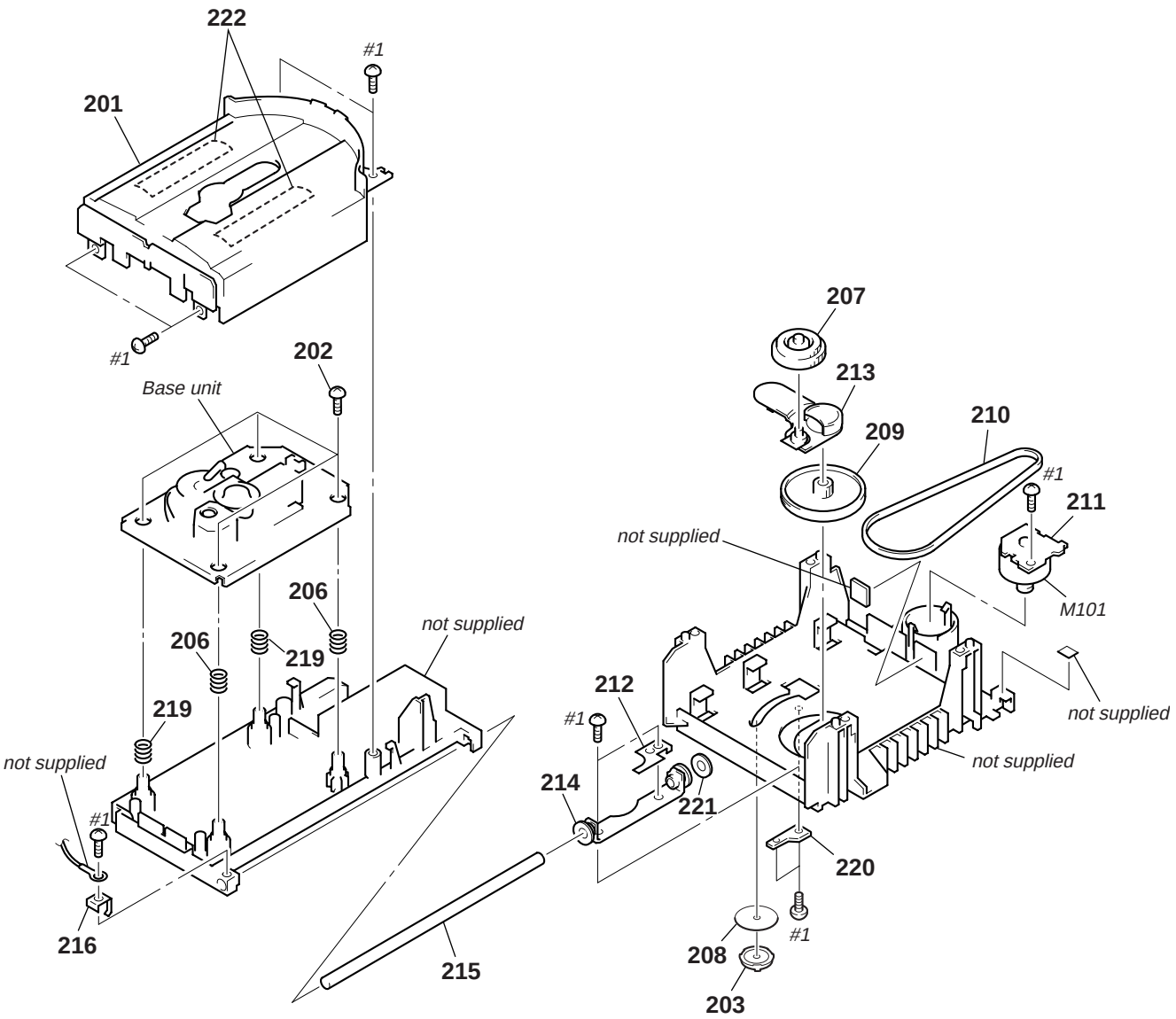


Ref. No.	Part No.	Description	Remarks
101	X-4949-523-1	FOOT ASSY (F50180S)	
102	3-701-822-01	HOLDER, WIRE	
* 103	1-669-373-12	TRANS BOARD	
104	A-4724-765-A	POWER BOARD, COMPLETE (XB930E)	
104	A-4724-847-A	POWER BOARD, COMPLETE (XB930)	
* 106	A-4724-763-A	SERVO BOARD, COMPLETE	
108	A-4724-764-A	MAIN BOARD, COMPLETE (XB930E)	
108	A-4724-846-A	MAIN BOARD, COMPLETE (XB930)	
109	1-776-998-11	WIRE (FLAT TYPE) (21 CORE)	
110	3-979-112-01	SCREW SW(+)BVTP 3 × 10	

Ref. No.	Part No.	Description	Remarks
111	3-703-249-01	SCREW, S TIGHT, +PTTWH 3 × 6 (XB930E:SP)	
111	3-703-249-21	SCREW, S TIGHT, +PTTWH (M3 × 8)	(XB930/XB930E:UK)
112	7-685-646-79	SCREW +BVTP (3 × 8) TYPE2 N-S (XB930)	
112	4-967-961-01	SCREW (3 × 8) (XB930E)	
113	3-704-515-21	SCREW (BV/RING) (XB930)	
113	3-704-515-41	SCREW (BV/RING) (XB930E)	
115	4-222-658-01	SHEET, MAGNET	
⚠ T901	1-431-902-21	TRANSFORMER, POWER	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

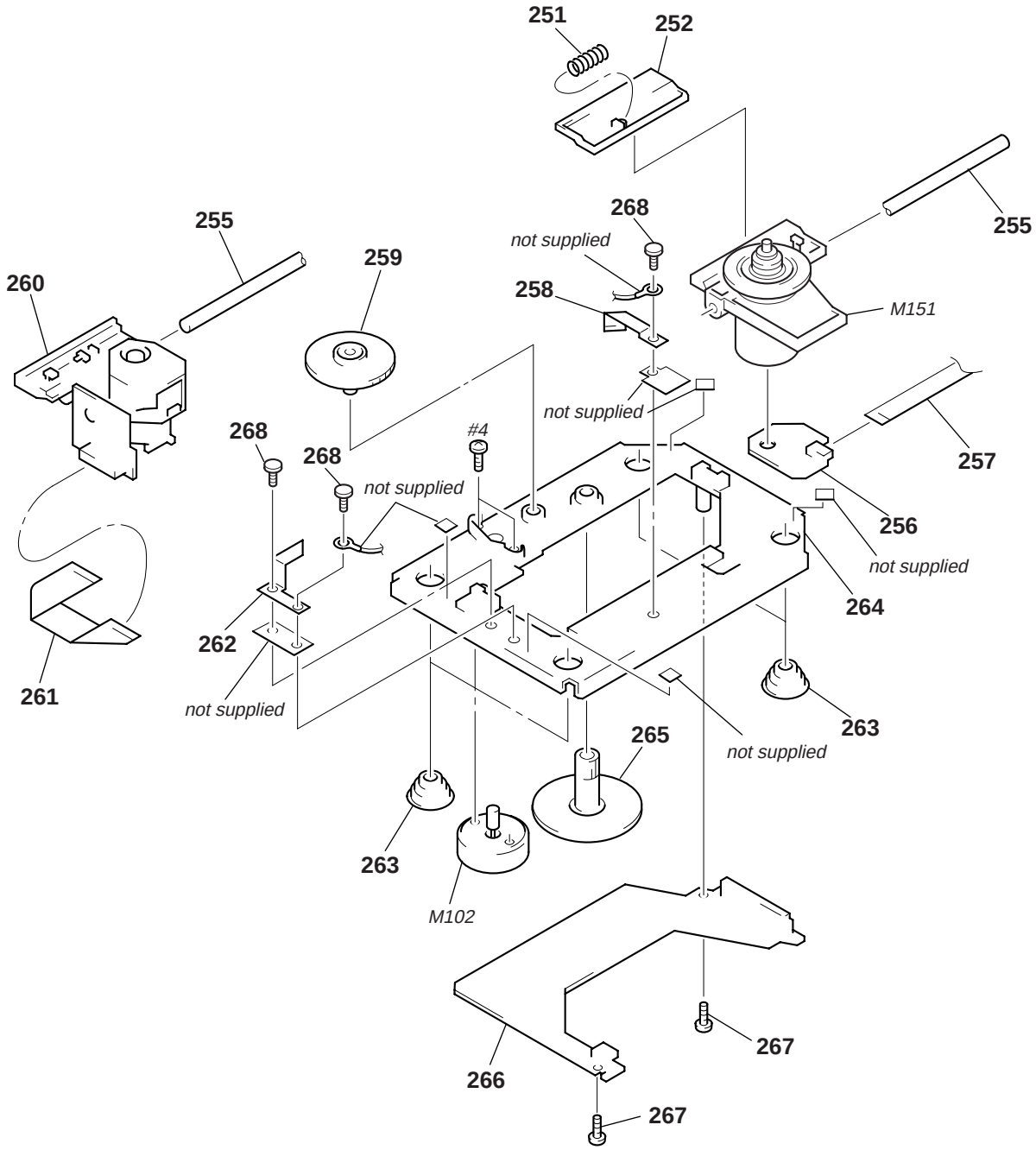
7-4. CD MECHANISM SECTION (CDM36D-14D)



Ref. No.	Part No.	Description	Remarks
* 201	4-977-902-01	PANEL (DRAWER)	
202	4-933-134-01	SCREW (+PTPWH M2.6 × 6)	
203	4-986-919-01	LIMITTER (LEVER)	
206	4-989-303-01	SPRING (BU-LF), COMPRESSION	
207	4-977-897-01	GEAR	
208	4-988-103-01	SLIDER (SWING)	
209	4-977-896-01	PULLEY	
210	4-968-905-01	BELT (CDM)	
* 212	4-977-891-01	PLATE, GROUND	

Ref. No.	Part No.	Description	Remarks
213	4-977-898-01	LEVER (SWING)	
* 214	4-977-892-01	BEARING	
* 215	4-977-888-01	SHAFT	
* 216	4-977-889-01	PLATE (BU), GROUND	
219	4-995-706-01	SPRING, COMPRESSION	
* 220	1-666-163-11	LDIN SW BOARD	
221	4-988-107-01	CUSHION (LD)	
* 221	1-658-710-11	LOADING BOARD	
222	4-993-897-01	DAMPER (90 × 15)	
M101	A-4660-968-A	MOTOR ASSY (WITH PULLEY)(LOADING)	

7-5. BASE UNIT SECTION (BU-14D)



Ref. No.	Part No.	Description	Remarks
251	4-977-925-01	SPRING(SLIDE BASE),COMPRESSION	
252	4-977-926-01	RACK, SLIDE	
255	4-977-923-01	SHAFT, SLED	
* 256	1-658-708-11	SPINDLE BOARD	
257	1-775-990-11	WIRE (FLAT TYPE) (5 CORE)	
* 258	4-977-928-01	SPRING (SPINDLE), LEAF	
259	4-977-921-01	GEAR (B), FLAT	
⚠ 260	8-848-379-31	OPTICAL PICK-UP KSS-213B/K-N	
261	1-775-991-11	WIRE (FLAT TYPE) (16 CORE)	

Ref. No.	Part No.	Description	Remarks
* 262	4-993-919-01	SPRING (A) (OP), LEAF	
263	4-917-562-01	INSULATOR	
* 264	4-977-918-01	BASE (OUTSERT)	
265	4-977-920-01	GEAR (C), FLAT	
* 266	1-658-709-11	SLED BOARD	
267	4-951-620-01	SCREW (2.6 × 8), +BVTP	
268	2-279-715-01	RIVET, NYLON	
M102	X-4947-303-1	MOTOR ASSY (WITH PULLEY)(SLED)	
M151	X-4950-461-1	MOTOR ASSY (SPINDLE)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

DISP

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- Abbreviation
  SP : Singapore model
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description			Remarks
*	A-4724-932-A	DISP BOARD, COMPLETE			
		**********			
*	4-955-901-01	CUSHION (FL)			
*	4-997-495-01	GUIDE (FL)			
		< CAPACITOR >			
C503	1-164-159-11	CERAMIC	0.1uF		50V
C804	1-164-159-11	CERAMIC	0.1uF		50V
C806	1-164-159-11	CERAMIC	0.1uF		50V
C807	1-124-584-00	ELECT	100uF	20%	10V
C810	1-126-868-11	ELECT	47uF	20%	50V
C813	1-124-584-00	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN501	1-568-838-11	SOCKET, CONNECTOR 21P			
		< DIODE >			
D621	8-719-911-19	DIODE 1SS133T-72			
D958	8-719-110-03	DIODE RD7.5ES-T2B2			
		< FILTER >			
FL501	1-517-740-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC801	8-752-903-24	IC CXP82832-017Q			
IC802	8-749-014-66	IC NJL56H400A (REMOTE SENSOR)			
		< FILTER >			
LPF904	1-424-122-11	FILTER, NOISE			
LPF905	1-424-122-11	FILTER, NOISE			
		< TRANSISTOR >			
Q621	8-729-119-78	TRANSISTOR 2SC2603TP-E			
Q801	8-729-029-66	TRANSISTOR DTC114ESA-TP			
Q802	8-729-029-66	TRANSISTOR DTC114ESA-TP			
		< RESISTOR >			
R535	1-249-429-11	CARBON	10K	5%	1/4W
R536	1-249-427-11	CARBON	6.8K	5%	1/4W F
R539	1-249-429-11	CARBON	10K	5%	1/4W
R541	1-247-807-31	CARBON	100	5%	1/4W
R542	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R624	1-249-393-11	CARBON	10	5%	1/4W F
R625	1-249-429-11	CARBON	10K	5%	1/4W
R626	1-249-425-11	CARBON	4.7K	5%	1/4W F
R811	1-249-427-11	CARBON	6.8K	5%	1/4W F
R812	1-249-415-11	CARBON	680	5%	1/4W F
R813	1-249-417-11	CARBON	1K	5%	1/4W F
R814	1-249-419-11	CARBON	1.5K	5%	1/4W F
R815	1-249-421-11	CARBON	2.2K	5%	1/4W F
R816	1-247-843-11	CARBON	3.3K	5%	1/4W
R821	1-249-427-11	CARBON	6.8K	5%	1/4W F
R822	1-249-415-11	CARBON	680	5%	1/4W F
R823	1-249-417-11	CARBON	1K	5%	1/4W F
R824	1-249-419-11	CARBON	1.5K	5%	1/4W F
R825	1-249-421-11	CARBON	2.2K	5%	1/4W F
R826	1-247-843-11	CARBON	3.3K	5%	1/4W
R830	1-249-427-11	CARBON	6.8K	5%	1/4W F
R831	1-249-441-11	CARBON	100K	5%	1/4W
R832	1-249-441-11	CARBON	100K	5%	1/4W
R834	1-249-417-11	CARBON	1K	5%	1/4W F
R837	1-249-429-11	CARBON	10K	5%	1/4W
R838	1-249-429-11	CARBON	10K	5%	1/4W
R851	1-249-427-11	CARBON	6.8K	5%	1/4W F
R953	1-249-437-11	CARBON	47K	5%	1/4W
⚠R961	1-212-869-00	FUSIBLE	33	5%	1/4W F
⚠R962	1-212-869-00	FUSIBLE	33	5%	1/4W F
		< SWITCH >			
S511	1-554-303-21	SWITCH, TACTILE (REW)			
S512	1-554-303-21	SWITCH, TACTILE (FF)			
S513	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)			
S514	1-554-303-21	SWITCH, TACTILE (CHECK)			
S515	1-554-303-21	SWITCH, TACTILE (CLEAR)			
S521	1-554-303-21	SWITCH, TACTILE (EJECT)			
S522	1-554-303-21	SWITCH, TACTILE (PLAY)			
S523	1-554-303-21	SWITCH, TACTILE (PAUSE)			
S524	1-554-303-21	SWITCH, TACTILE (STOP)			
S531	1-475-543-11	ENCODER, ROTARY (AMS)			
		< VIBRATOR >			
X501	1-579-125-11	VIBRATOR, CERAMIC (8 MHz)			

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Ref. No.	Part No.	Description				Remarks
*	1-669-372-11	HP BOARD (XB930)				
		*********				
*	4-962-201-01	PLATE (HP), GROUND (XB930)				
		< CAPACITOR >				
C350	1-162-294-31	CERAMIC	0.001uF	10%	50V	(XB930)
C351	1-162-294-31	CERAMIC	0.001uF	10%	50V	(XB930)
C352	1-164-159-11	CERAMIC	0.1uF		50V	(XB930)
		< JACK >				
J350	1-750-162-61	JACK (LARGE TYPE) (PHONES) (XB930)				
		< COIL >				
L350	1-410-507-11	INDUCTOR 6.8uH (XB930)				
L351	1-410-507-11	INDUCTOR 6.8uH (XB930)				
L352	1-424-122-11	FILTER, NOISE (XB930)				
		< VARIABLE RESISTOR >				
RV350	1-223-926-11	RES, VAR, CARBON 1K/1K (PHONE LEVEL)				(XB930)
**********						
*	1-669-371-11	KEY BOARD				
		*********				
		< RESISTOR >				
R602	1-249-415-11	CARBON	680	5%	1/4W	F
R603	1-249-417-11	CARBON	1K	5%	1/4W	F
R604	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R605	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R606	1-247-843-11	CARBON	3.3K	5%	1/4W	
R607	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R608	1-249-431-11	CARBON	15K	5%	1/4W	
		< SWITCH >				
S601	1-554-303-21	SWITCH, TACTILE (LANGUAGE)				
S602	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)				
S603	1-554-303-21	SWITCH, TACTILE (AUTO SPACE)				
S604	1-554-303-21	SWITCH, TACTILE (REPEAT)				
S605	1-554-303-21	SWITCH, TACTILE (FADER)				
S606	1-554-303-21	SWITCH, TACTILE (TIME/TEXT)				
S607	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)				
S608	1-554-303-21	SWITCH, TACTILE (PLAY MODE)				
**********						
*	1-666-163-11	LD IN SW BOARD				
		**********				
		< CONNECTOR >				
CN112	1-506-481-11	PIN, CONNECTOR 2P				
		< SWITCH >				
S152	1-762-424-11	SWITCH, MICRO (LOADING)				
**********						

Ref. No.	Part No.	Description			
*	1-658-710-11	LOADING BOARD			
		**********			
		< MOTOR >			
M101	A-4660-968-A	MOTOR ASSY (WITH PULLEY)(LOADING)			
**********					
	A-4724-764-A	MAIN BOARD, COMPLETE (XB930E)			
		**********			
	A-4724-846-A	MAIN BOARD, COMPLETE (XB930)			
		**********			
	4-211-300-21	RING, RUBBER			
		< CAPACITOR >			
C259	1-161-494-00	CERAMIC	0.022uF		25V
C260	1-162-215-31	CERAMIC	47PF	5%	50V
C271	1-124-673-11	ELECT	100uF	20%	10V
C272	1-161-494-00	CERAMIC	0.022uF		25V
C273	1-161-494-00	CERAMIC	0.022uF		25V
C274	1-161-494-00	CERAMIC	0.022uF		25V
C280	1-102-110-00	CERAMIC	220PF	10%	50V
C281	1-164-159-11	CERAMIC	0.1uF		50V
C282	1-162-286-31	CERAMIC	220PF	10%	50V
C316	1-126-916-11	ELECT	1000uF	20%	6.3V
C341	1-125-780-21	ELECT	470uF	20%	16V
C342	1-136-850-11	FILM	0.1uF	5%	63V
C343	1-126-049-11	ELECT	22uF	20%	50V
C344	1-136-177-00	FILM	1uF	5%	50V
C345	1-119-779-11	ELECT	220uF	20%	10V
C346	1-126-916-11	ELECT	1000uF	20%	6.3V
C353	1-102-114-00	CERAMIC	470PF	10%	50V
C355	1-102-106-00	CERAMIC	100PF	10%	50V
C356	1-101-005-00	CERAMIC	22000PF		50V
C357	1-162-208-31	CERAMIC	24PF	5%	50V
C358	1-102-945-00	CERAMIC	8.0PF	+-0.5PF	50V
C359	1-102-945-00	CERAMIC	8.0PF	+-0.5PF	50V
C360	1-162-208-31	CERAMIC	24PF	5%	50V
C361	1-125-781-21	ELECT	220uF	20%	35V
C362	1-130-495-00	MYLAR	0.1uF	5%	50V
C363	1-125-890-11	ELECT	1000uF	20%	6.3V
C365	1-162-208-31	CERAMIC	24PF	5%	50V
C367	1-136-177-00	FILM	1uF	5%	50V
C381	1-136-177-00	FILM	1uF	5%	50V
C382	1-106-343-00	MYLAR	1000PF	5%	200V
C384	1-136-177-00	FILM	1uF	5%	50V
C386	1-130-495-00	MYLAR	0.1uF	5%	50V
C387	1-126-916-11	ELECT	1000uF	20%	6.3V
C389	1-125-890-11	ELECT	1000uF	20%	6.3V
C391	1-104-645-11	CERAMIC	1uF	20%	50V
C392	1-126-916-11	ELECT	1000uF	20%	6.3V
C393	1-136-177-00	FILM	1uF	5%	50V
C404	1-136-177-00	FILM	1uF	5%	50V
C405	1-119-779-11	ELECT	220uF	20%	10V
C406	1-136-177-00	FILM	1uF	5%	50V
C407	1-119-779-11	ELECT	220uF	20%	10V
C409	1-136-817-91	FILM	0.0033uF	5%	100V
C410	1-102-959-91	CERAMIC	22PF	5%	50V
C411	1-102-959-91	CERAMIC	22PF	5%	50V
C412	1-136-252-00	FILM	0.0015uF	5%	100V

MAIN

Ref. No.	Part No.	Description			Remarks
C413	1-136-813-11	FILM	680PF	5%	100V
C414	1-137-506-11	FILM	0.47uF	10%	63V
C415	1-125-781-21	ELECT	220uF	20%	35V
C419	1-101-005-00	CERAMIC	22000PF		50V
C420	1-130-955-00	FILM	0.01uF	5%	100V
C421	1-130-955-00	FILM	0.01uF	5%	100V
C423	1-128-197-11	ELECT	10uF	20%	50V
C424	1-136-850-11	FILM	0.1uF	5%	63V
C425	1-136-177-00	FILM	1uF	5%	50V
C426	1-136-850-11	FILM	0.1uF	5%	63V
C427	1-136-802-11	FILM	0.015uF	5%	100V
C428	1-128-197-11	ELECT	10uF	20%	63V
C429	1-128-200-11	ELECT	47uF	20%	63V
C430	1-136-177-00	FILM	1uF	5%	50V
C431	1-136-230-00	FILM	0.0022uF	5%	100V
C432	1-136-230-00	FILM	0.0022uF	5%	100V
C433	1-102-947-00	CERAMIC	10PF	5%	50V
C435	1-106-343-00	MYLAR	1000PF	5%	200V
C440	1-136-165-00	FILM	0.1uF	5%	50V (XB930)
C504	1-136-177-00	FILM	1uF	5%	50V
C505	1-119-779-11	ELECT	220uF	20%	10V
C506	1-136-177-00	FILM	1uF	5%	50V
C507	1-119-779-11	ELECT	220uF	20%	10V
C508	1-119-837-11	ELECT	100uF	20%	63V
C509	1-136-817-91	FILM	0.0033uF	5%	100V
C510	1-102-959-91	CERAMIC	22PF	5%	50V
C511	1-102-959-91	CERAMIC	22PF	5%	50V
C512	1-136-252-00	FILM	0.0015uF	5%	100V
C513	1-136-813-11	FILM	680PF	5%	100V
C514	1-137-506-11	FILM	0.47uF	10%	63V
C515	1-125-781-21	ELECT	220uF	20%	35V
C519	1-101-005-00	CERAMIC	22000PF		50V
C520	1-130-955-00	FILM	0.01uF	5%	100V
C521	1-130-955-00	FILM	0.01uF	5%	100V
C523	1-128-197-11	ELECT	10uF	20%	50V
C524	1-136-850-11	FILM	0.1uF	5%	63V
C525	1-136-177-00	FILM	1uF	5%	50V
C527	1-136-802-11	FILM	0.015uF	5%	100V
C529	1-128-200-11	ELECT	47uF	20%	63V
C530	1-136-177-00	FILM	1uF	5%	50V
C531	1-136-230-00	FILM	0.0022uF	5%	100V
C532	1-136-230-00	FILM	0.0022uF	5%	100V
C533	1-102-947-00	CERAMIC	10PF	5%	50V
C535	1-106-343-00	MYLAR	1000PF	5%	200V
C540	1-136-165-00	FILM	0.1uF	5%	50V (XB930)
C609	1-126-868-11	ELECT	47uF	20%	50V
C811	1-126-016-11	ELECT	4700uF	20%	16V
C812	1-124-699-11	ELECT	220uF	20%	10V
C814	1-130-495-00	MYLAR	0.1uF	5%	50V
C820	1-162-294-31	CERAMIC	0.001uF	10%	50V
C821	1-126-046-11	ELECT	3.3uF	20%	50V
C822	1-161-494-00	CERAMIC	0.022uF		25V
C823	1-161-494-00	CERAMIC	0.022uF		25V
C905	1-126-234-11	ELECT	2200uF	20%	16V
C906	1-126-234-11	ELECT	2200uF	20%	16V

Ref. No.	Part No.	Description			Remarks
C953	1-128-197-11	ELECT	10uF	20%	63V
C961	1-126-023-11	ELECT	100uF	20%	25V (XB930)
C962	1-126-023-11	ELECT	100uF	20%	25V (XB930)
		< CONNECTOR >			
CN201	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN202	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN301	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN302	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
* CN303	1-568-954-11	PIN, CONNECTOR 5P			
CN304	1-568-841-11	SOCKET, CONNECTOR 25P			
CN305	1-568-838-11	SOCKET, CONNECTOR 21P			
CN351	1-506-468-11	PIN, CONNECTOR 3P (XB930)			
		< DIODE >			
D261	8-719-911-19	DIODE 1SS133T-72			
D262	8-719-911-19	DIODE 1SS133T-72			
D263	8-719-911-19	DIODE 1SS133T-72			
D264	8-719-911-19	DIODE 1SS133T-72			
D301	8-719-210-21	DIODE 11EQS04-TA2B			
D302	8-719-210-21	DIODE 11EQS04-TA2B			
D303	8-719-210-21	DIODE 11EQS04-TA2B			
D305	8-719-210-21	DIODE 11EQS04-TA2B			
D307	8-719-024-99	DIODE 11ES2-NTA2B			
D308	8-719-024-99	DIODE 11ES2-NTA2B			
D310	8-719-911-19	DIODE 1SS133T-72			
D311	8-719-210-21	DIODE 11EQS04-TA2B			
D312	8-719-210-21	DIODE 11EQS04-TA2B			
D313	8-719-024-99	DIODE 11ES2-NTA2B			
D351	8-719-911-19	DIODE 1SS133T-72			
D352	8-719-911-19	DIODE 1SS133T-72			
D355	8-719-911-19	DIODE 1SS133T-72			
D356	8-719-911-19	DIODE 1SS133T-72			
D957	8-719-117-24	DIODE RD36JS-T2AB2			
		< IC >			
IC203	8-759-242-70	IC TC7WU04F-TE12L			
IC208	8-749-921-12	IC GP1F32T (OPTICAL)			
IC251	8-759-242-70	IC TC7WU04F-TE12L			
IC301	8-759-527-07	IC CXD8735N			
IC302	8-759-361-58	IC CXA8055M			
IC304	8-759-711-35	IC NJM4580D (XB930)			
IC401	8-759-573-62	IC OPA2134PA			
IC402	8-759-602-83	IC M5238P			
IC501	8-759-573-62	IC OPA2134PA			
IC502	8-759-602-83	IC M5238P			
IC902	8-759-231-53	IC M5F7805L			
IC903	8-759-231-58	IC M5F7812L			
IC904	8-759-245-86	IC M5F7912L			
IC905	8-759-231-53	IC M5F7805L			
IC906	8-759-604-90	IC M5F7907L			
IC920	8-759-636-16	IC M51957AL			
		< JACK >			
J301	1-774-727-11	JACK, PIN 2P (LINE OUT)			
J351	1-770-905-21	JACK, PIN 1P (COAXIAL)			
J352	1-774-726-11	JACK (S-LINK CONTROL A1)			

Ref. No.	Part No.	Description			Remarks
		< COIL >			
L251	1-410-322-11	INDUCTOR 3.3uH			
L252	1-410-322-11	INDUCTOR 3.3uH			
L302	1-410-322-11	INDUCTOR 3.3uH			
L303	1-410-322-11	INDUCTOR 3.3uH			
L304	1-410-322-11	INDUCTOR 3.3uH			
L305	1-410-322-11	INDUCTOR 3.3uH			
L306	1-410-521-11	INDUCTOR 100uH			
L307	1-412-473-21	INDUCTOR 0uH			
L312	1-410-757-21	INDUCTOR 0.33mH			
L313	1-410-757-21	INDUCTOR 0.33mH			
L315	1-410-757-21	INDUCTOR 0.33mH			
L353	1-410-397-21	FERRITE BEAD INDUCTOR (XB930)			
L361	1-410-521-11	INDUCTOR 100uH			
L401	1-410-781-11	INDUCTOR 33mH			
L402	1-424-122-11	FILTER, NOISE			
L501	1-410-781-11	INDUCTOR 33mH			
L502	1-424-122-11	FILTER, NOISE			
L951	1-412-473-21	INDUCTOR 0uH (XB930)			
		< FILTER >			
LPF901	1-424-153-11	FILTER, NOISE			
LPF902	1-424-153-11	FILTER, NOISE			
LPF903	1-424-153-11	FILTER, NOISE			
		< TRANSISTOR >			
Q302	8-729-029-56	TRANSISTOR DTA144ESA-TP			
Q303	8-729-029-56	TRANSISTOR DTA144ESA-TP			
Q402	8-729-231-55	TRANSISTOR 2SC2878B-TPE2			
Q403	8-729-231-55	TRANSISTOR 2SC2878B-TPE2 (XB930)			
Q404	8-729-231-55	TRANSISTOR 2SC2878B-TPE2			
Q502	8-729-231-55	TRANSISTOR 2SC2878B-TPE2			
Q503	8-729-231-55	TRANSISTOR 2SC2878B-TPE2 (XB930)			
Q504	8-729-231-55	TRANSISTOR 2SC2878B-TPE2			
Q951	8-729-019-65	TRANSISTOR 2SB1041T103			
		< RESISTOR >			
R254	1-259-380-11	CARBON	10	5%	1/6W
R255	1-259-428-11	CARBON	1K	5%	1/6W
R256	1-259-396-11	CARBON	47	5%	1/6W
R257	1-259-380-11	CARBON	10	5%	1/6W
R258	1-259-428-11	CARBON	1K	5%	1/6W
R259	1-259-428-11	CARBON	1K	5%	1/6W
R260	1-259-428-11	CARBON	1K	5%	1/6W
R262	1-259-396-11	CARBON	47	5%	1/6W
R263	1-259-380-11	CARBON	10	5%	1/6W
R281	1-259-404-11	CARBON	100	5%	1/6W
R303	1-259-428-11	CARBON	1K	5%	1/6W
R306	1-259-492-11	CARBON	470K	5%	1/6W
R312	1-259-428-11	CARBON	1K	5%	1/6W
R313	1-259-416-11	CARBON	330	5%	1/6W
R314	1-259-440-11	CARBON	3.3K	5%	1/6W
R318	1-259-476-11	CARBON	100K	5%	1/6W
R319	1-259-476-11	CARBON	100K	5%	1/6W
R331	1-259-428-11	CARBON	1K	5%	1/6W
R332	1-259-428-11	CARBON	1K	5%	1/6W
R341	1-259-452-11	CARBON	10K	5%	1/6W
R342	1-259-452-11	CARBON	10K	5%	1/6W
R350	1-259-452-11	CARBON	10K	5%	1/6W
R351	1-259-428-11	CARBON	1K	5%	1/6W
R352	1-259-428-11	CARBON	1K	5%	1/6W
R353	1-259-428-11	CARBON	1K	5%	1/6W
R360	1-259-436-11	CARBON	2.2K	5%	1/6W
R361	1-259-436-11	CARBON	2.2K	5%	1/6W
R362	1-259-436-11	CARBON	2.2K	5%	1/6W
R381	1-249-420-11	CARBON	1.8K	5%	1/4W F
R382	1-249-404-00	CARBON	82	5%	1/4W F
R405	1-249-955-11	CARBON	22K	5%	1/4W
R406	1-249-955-11	CARBON	22K	5%	1/4W
R407	1-249-586-11	CARBON	27K	5%	1/4W
R408	1-249-586-11	CARBON	27K	5%	1/4W
R409	1-249-556-11	CARBON	1.5K	5%	1/4W
R411	1-247-891-00	CARBON	330K	5%	1/4W
R412	1-259-432-11	CARBON	1.5K	5%	1/6W
R413	1-249-915-11	CARBON	470	5%	1/4W
R414	1-259-432-11	CARBON	1.5K	5%	1/6W
R415	1-249-528-91	CARBON	100	5%	1/4W
R416	1-249-923-11	CARBON	1K	5%	1/4W
R417	1-410-322-11	INDUCTOR	3.3UH		
R418	1-259-476-11	CARBON	100K	5%	1/6W
R420	1-249-524-11	CARBON	68	5%	1/4W
R421	1-249-524-11	CARBON	68	5%	1/4W
R422	1-249-524-11	CARBON	68	5%	1/4W
R423	1-249-524-11	CARBON	68	5%	1/4W
R430	1-247-690-11	CARBON	15	5%	1/4W F
R431	1-247-690-11	CARBON	15	5%	1/4W F
R432	1-249-915-11	CARBON	470	5%	1/4W
R433	1-249-915-11	CARBON	470	5%	1/4W
R444	1-249-528-91	CARBON	100	5%	1/4W
R445	1-249-528-91	CARBON	100	5%	1/4W
R451	1-259-472-11	CARBON	68K	5%	1/6W (XB930)
R452	1-259-480-11	CARBON	150K	5%	1/6W (XB930)
R453	1-259-484-11	CARBON	220K	5%	1/6W (XB930)
R454	1-259-492-11	CARBON	470K	5%	1/6W (XB930)
R455	1-259-396-11	CARBON	47	5%	1/6W (XB930)
R505	1-249-955-11	CARBON	22K	5%	1/4W
R506	1-249-955-11	CARBON	22K	5%	1/4W
R507	1-249-586-11	CARBON	27K	5%	1/4W
R508	1-249-586-11	CARBON	27K	5%	1/4W
R509	1-249-556-11	CARBON	1.5K	5%	1/4W
R511	1-247-891-00	CARBON	330K	5%	1/4W
R512	1-259-432-11	CARBON	1.5K	5%	1/6W
R513	1-249-915-11	CARBON	470	5%	1/4W
R514	1-259-432-11	CARBON	1.5K	5%	1/6W
R515	1-249-528-91	CARBON	100	5%	1/4W
R516	1-249-923-11	CARBON	1K	5%	1/4W
R517	1-410-322-11	INDUCTOR	3.3UH		
R518	1-259-476-11	CARBON	100K	5%	1/6W
R520	1-249-524-11	CARBON	68	5%	1/4W
R521	1-249-524-11	CARBON	68	5%	1/4W
R522	1-249-524-11	CARBON	68	5%	1/4W
R523	1-249-524-11	CARBON	68	5%	1/4W

MAIN POWER POWER SW

Ref. No.	Part No.	Description			Remarks
R530	1-247-690-11	CARBON	15	5%	1/4W F
R531	1-247-690-11	CARBON	15	5%	1/4W F
R532	1-249-915-11	CARBON	470	5%	1/4W
R533	1-249-915-11	CARBON	470	5%	1/4W
R534	1-259-476-11	CARBON	100K	5%	1/6W
R544	1-249-528-91	CARBON	100	5%	1/4W
R545	1-249-528-91	CARBON	100	5%	1/4W
R551	1-259-472-11	CARBON	68K	5%	1/6W (XB930)
R552	1-259-480-11	CARBON	150K	5%	1/6W (XB930)
R553	1-259-484-11	CARBON	220K	5%	1/6W (XB930)
R554	1-259-492-11	CARBON	470K	5%	1/6W (XB930)
R555	1-259-396-11	CARBON	47	5%	1/6W (XB930)
R820	1-259-456-11	CARBON	15K	5%	1/6W
R931	1-259-466-11	CARBON	39K	5%	1/6W
R932	1-259-440-11	CARBON	3.3K	5%	1/6W
R951	1-212-869-00	FUSIBLE	33	5%	1/4W F
R952	1-259-452-11	CARBON	10K	5%	1/6W
R971	1-259-420-11	CARBON	470	5%	1/6W (XB930)
R972	1-259-420-11	CARBON	470	5%	1/6W (XB930)
		< TRANSFORMER >			
T201	1-409-594-11	COIL (WITH CORE)			
		< VIBRATOR >			
X301	1-767-926-11	VIBRATOR, CRYSTAL (45 MHz)			
**********					
	A-4724-765-A	POWER BOARD, COMPLETE (XB930E)			
		**********			
	A-4724-847-A	POWER BOARD, COMPLETE (XB930)			
		**********			
	7-685-871-01	SCREW +BVTT 3 × 6 (S)			
		< CAPACITOR >			
C901	1-117-912-21	ELECT	3900uF	20%	25V
C902	1-117-912-21	ELECT	3900uF	20%	25V
C910	1-136-177-00	FILM	1uF	5%	50V
C911	1-117-810-11	ELECT	6800uF	20%	25V
C915	1-126-012-11	ELECT	470uF	20%	16V
C916	1-136-177-00	FILM	1uF	5%	50V
C917	1-106-359-00	MYLAR	4700PF	5%	200V
C921	1-126-943-11	ELECT	2200uF	20%	25V
C922	1-126-942-61	ELECT	1000uF	20%	25V
C924	1-136-850-11	FILM	0.1uF	5%	63V
C925	1-128-197-11	ELECT	10uF	20%	50V
C926	1-128-197-11	ELECT	10uF	20%	50V
C927	1-130-489-00	MYLAR	0.033uF	5%	50V
C928	1-128-197-11	ELECT	10uF	20%	50V
C931	1-128-197-11	ELECT	10uF	20%	50V
C932	1-128-197-11	ELECT	10uF	20%	50V
C951	1-110-395-11	ELECT	330uF	20%	63V
C952	1-124-911-11	ELECT	220uF	20%	50V
C954	1-136-850-11	FILM	0.1uF	5%	63V
C955	1-136-177-00	FILM	1uF	5%	50V

Ref. No.	Part No.	Description			Remarks
		< CONNECTOR >			
CN901	1-691-771-11	PLUG (MICRO CONNECTOR) 9P			
CN902	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			
CN903	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN904	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
		< DIODE >			
D901	8-719-210-21	DIODE 11EQS04-TA2B			
D902	8-719-210-21	DIODE 11EQS04-TA2B			
D903	8-719-210-21	DIODE 11EQS04-TA2B			
D904	8-719-210-21	DIODE 11EQS04-TA2B			
D911	8-719-210-21	DIODE 11EQS04-TA2B			
D912	8-719-210-21	DIODE 11EQS04-TA2B			
D913	8-719-210-21	DIODE 11EQS04-TA2B			
D914	8-719-210-21	DIODE 11EQS04-TA2B			
D921	8-719-911-19	DIODE 1SS133T-72			
D922	8-719-114-30	DIODE RD5.1JS-T2AB2			
D923	8-719-911-19	DIODE 1SS133T-72			
D924	8-719-911-19	DIODE 1SS133T-72			
D925	8-719-911-19	DIODE 1SS133T-72			
D951	8-719-024-99	DIODE 11ES2-NTA2B			
D952	8-719-024-99	DIODE 11ES2-NTA2B			
D953	8-719-024-99	DIODE 11ES2-NTA2B			
D954	8-719-024-99	DIODE 11ES2-NTA2B			
		< IC >			
IC901	8-759-604-86	IC M5F7807L			
		< COIL >			
L902	1-424-122-11	FILTER, NOISE			
L903	1-424-122-11	FILTER, NOISE			
L904	1-424-122-11	FILTER, NOISE			
L905	1-424-122-11	FILTER, NOISE			
L906	1-424-122-11	FILTER, NOISE			
L907	1-424-122-11	FILTER, NOISE			
		< RESISTOR >			
R921	1-249-413-11	CARBON	470	5%	1/4W F
R922	1-249-417-11	CARBON	1K	5%	1/4W F
R925	1-259-416-11	CARBON	330	5%	1/6W
⚠R954	1-212-869-00	FUSIBLE	33	5%	1/4W F
**********					
*	1-669-370-11	POWER SW BOARD			
		**********			
		< CAPACITOR >			
⚠C991	1-113-916-11	CERAMIC	0.01uF	20%	250V
		< CONNECTOR >			
CN994	1-690-123-21	REED (WITH CONNECTOR) (2 CORE)			
		< SWITCH >			
S991	1-572-267-51	SWITCH, PUSH (AC POWER)(1 KEY) (POWER)			
**********					

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remarks
*	1-670-212-11	ROTARY SW BOARD			
		**********			
		< RESISTOR >			
R852	1-249-415-11	CARBON	680	5%	1/4W F
R853	1-249-417-11	CARBON	1K	5%	1/4W F
R854	1-249-419-11	CARBON	1.5K	5%	1/4W F
		< SWITCH >			
S550	1-771-312-11	SWITCH, ROTARY (FILTER)			
**********					
*	A-4724-763-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C051	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C052	1-126-868-11	ELECT	47uF	20%	50V
C061	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C071	1-126-052-11	ELECT	100uF	20%	16V
C072	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C073	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C101	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C102	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C103	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C104	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C105	1-119-779-11	ELECT	220uF	20%	10V
C106	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C107	1-130-973-00	FILM	0.022uF	5%	63V
C108	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C109	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C111	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C112	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C113	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C114	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C115	1-126-916-11	ELECT	1000uF	20%	6.3V
C116	1-126-916-11	ELECT	1000uF	20%	6.3V
C117	1-109-930-11	TANTAL. CHIP	220uF	20%	2.5V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C121	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C122	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C125	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C126	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C128	1-104-848-11	TANTAL. CHIP	100uF	20%	4V
C129	1-126-934-11	ELECT	220uF	20%	10V
C131	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C132	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C140	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C141	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C151	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C152	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C153	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C154	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C155	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C156	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C157	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C158	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C160	1-164-690-91	CERAMIC CHIP	0.0022uF	5%	50V
C161	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C162	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C163	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C170	1-113-988-11	TANTAL. CHIP	68uF	20%	4V
C171	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C172	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C173	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
C180	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C191	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C192	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C193	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C194	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C261	1-124-225-11	ELECT	100uF	20%	6.3V
C262	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C360	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C371	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C372	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
		< CONNECTOR >			
* CN101	1-568-867-11	SOCKET, CONNECTOR 25P			
CN102	1-563-932-11	CONNECTOR, F.P.C 21P			
* CN103	1-568-941-11	PIN, CONNECTOR 3P			
* CN108	1-564-518-11	PLUG, CONNECTOR 3P			
* CN109	1-564-518-11	PLUG, CONNECTOR 3P			
CN113	1-506-481-11	PIN, CONNECTOR 2P			
		< DIODE >			
D101	8-719-016-74	DIODE 1SS352-TPH3			
D113	8-719-016-74	DIODE 1SS352-TPH3			
D361	8-719-938-07	DIODE GL480			
		< IC >			
IC101	8-752-389-34	IC CXD2585Q			
IC102	8-759-071-79	IC BA6297AFP-T1			
IC103	8-752-085-51	IC CXA2568M-T6			
IC104	8-759-048-30	IC LA6510L			
IC361	8-749-010-61	IC IS471F			
		< COIL >			
L101	1-414-234-22	INDUCTOR CHIP 0uH			
L102	1-414-234-22	INDUCTOR CHIP 0uH			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR MSB710-RT1			
Q102	8-729-010-08	TRANSISTOR MSB710-RT1			
Q301	8-729-424-08	TRANSISTOR UN2111-TX			
Q302	8-729-421-22	TRANSISTOR UN2211-TX			
		< RESISTOR >			
R050	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R051	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R052	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R053	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R054	1-216-097-91	RES,CHIP	100K	5%	1/10W
R055	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R056	1-216-101-00	METAL CHIP	150K	5%	1/10W
R057	1-216-049-91	RES,CHIP	1K	5%	1/10W
R058	1-216-097-91	RES,CHIP	100K	5%	1/10W
R059	1-216-295-91	SHORT	0		

SERVO SLED SPINDLE

Ref. No.	Part No.	Description			Remarks
R060	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R061	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R062	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R063	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R064	1-216-097-91	RES,CHIP	100K	5%	1/10W
R065	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R066	1-216-101-00	METAL CHIP	150K	5%	1/10W
R067	1-216-049-91	RES,CHIP	1K	5%	1/10W
R068	1-216-097-91	RES,CHIP	100K	5%	1/10W
R069	1-216-295-91	SHORT	0		
R071	1-216-073-00	METAL CHIP	10K	5%	1/10W
R092	1-216-296-91	SHORT	0		
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-91	RES,CHIP	100K	5%	1/10W
R106	1-216-042-00	METAL CHIP	510	5%	1/10W
R107	1-216-077-00	METAL CHIP	15K	5%	1/10W
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W
R110	1-216-025-91	RES,CHIP	100	5%	1/10W
R112	1-216-049-91	RES,CHIP	1K	5%	1/10W
R113	1-216-073-00	METAL CHIP	10K	5%	1/10W
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W
R117	1-216-073-00	METAL CHIP	10K	5%	1/10W
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W
R121	1-216-073-00	METAL CHIP	10K	5%	1/10W
R122	1-216-073-00	METAL CHIP	10K	5%	1/10W
R123	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W
R125	1-216-037-00	METAL CHIP	330	5%	1/10W
R126	1-216-037-00	METAL CHIP	330	5%	1/10W
R127	1-216-037-00	METAL CHIP	330	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R133	1-216-049-91	RES,CHIP	1K	5%	1/10W
R134	1-216-049-91	RES,CHIP	1K	5%	1/10W
R135	1-216-295-91	SHORT	0		
R136	1-216-295-91	SHORT	0		
R137	1-216-295-91	SHORT	0		
R138	1-216-295-91	SHORT	0		
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R145	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R146	1-216-121-91	RES,CHIP	1M	5%	1/10W
R147	1-216-081-00	METAL CHIP	22K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	RES,CHIP	12	5%	1/10W
R150	1-216-121-91	RES,CHIP	1M	5%	1/10W
R151	1-216-073-00	METAL CHIP	10K	5%	1/10W
R152	1-216-073-00	METAL CHIP	10K	5%	1/10W
R153	1-216-073-00	METAL CHIP	10K	5%	1/10W
R154	1-216-073-00	METAL CHIP	10K	5%	1/10W
R155	1-216-073-00	METAL CHIP	10K	5%	1/10W
R156	1-216-073-00	METAL CHIP	10K	5%	1/10W
R157	1-216-105-91	RES,CHIP	220K	5%	1/10W
R158	1-216-105-91	RES,CHIP	220K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R160	1-216-097-91	RES,CHIP	100K	5%	1/10W
R162	1-216-113-00	METAL CHIP	470K	5%	1/10W
R163	1-216-105-91	RES,CHIP	220K	5%	1/10W
R168	1-216-295-91	SHORT	0		
R170	1-216-025-91	RES,CHIP	100	5%	1/10W
R171	1-216-073-00	METAL CHIP	10K	5%	1/10W
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W
R173	1-216-073-00	METAL CHIP	10K	5%	1/10W
R174	1-216-073-00	METAL CHIP	10K	5%	1/10W
R175	1-216-073-00	METAL CHIP	10K	5%	1/10W
R176	1-216-073-00	METAL CHIP	10K	5%	1/10W
R177	1-216-025-91	RES,CHIP	100	5%	1/10W
R181	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R182	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R183	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R184	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R185	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R186	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R187	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R191	1-216-009-91	RES,CHIP	22	5%	1/10W
R192	1-216-009-91	RES,CHIP	22	5%	1/10W
R193	1-216-009-91	RES,CHIP	22	5%	1/10W
R194	1-216-009-91	RES,CHIP	22	5%	1/10W
R301	1-216-021-00	METAL CHIP	68	5%	1/10W
R312	1-216-073-00	METAL CHIP	10K	5%	1/10W
R359	1-216-089-91	RES,CHIP	47K	5%	1/10W
R366	1-216-295-91	SHORT	0		

< SWITCH >

S153 1-762-930-11 SWITCH, LEVER (LOAD OUT)

****

* 1-658-709-11 SLED BOARD

****

< CONNECTOR >

CN104 1-774-380-11 CONNECTOR, FFC/FPC 16P

CN105 1-568-838-11 SOCKET, CONNECTOR 21P

* CN106 1-750-737-11 CONNECTOR, FFC/FPC 5P

< MOTOR >

M102 X-4947-303-1 MOTOR ASSY (WITH PULLEY)(SLED)

****

* 1-658-708-11 SPINDLE BOARD

****

< CONNECTOR >

* CN107 1-568-848-11 SOCKET, CONNECTOR 5P

< MOTOR >

M151 X-4950-461-1 MOTOR ASSY (SPINDLE)

< SWITCH >

S151 1-571-958-11 SWITCH, PUSH (1 KEY) (LIMIT)

****

Ref. No.	Part No.	Description			Remarks
*	1-669-373-12	TRANS BOARD			
		**********			
		< CAPACITOR >			
⚠C992	1-113-916-11	CERAMIC	0.01uF	20%	250V
⚠C993	1-102-106-00	CERAMIC	100PF	10%	50V
⚠C994	1-113-916-11	CERAMIC	0.01uF	20%	250V
		< CONNECTOR >			
* CN991	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CN992	1-564-321-00	PIN, CONNECTOR 2P			
		< COIL >			
⚠L901	1-424-485-11	FILTER, LINE			
		< RESISTOR >			
⚠R991	1-249-413-11	CARBON	470	5%	1/4W F
**********					
		MISCELLANEOUS			
		**********			
⚠6	1-575-651-21	CORD, POWER (XB930/XB930E:SP)			
⚠6	1-751-529-11	CORD, POWER (XB930E:UK)			
109	1-776-998-11	WIRE (FLAT TYPE) (21 CORE)			
257	1-775-990-11	WIRE (FLAT TYPE) (5 CORE)			
⚠260	8-848-379-31	OPTICAL PICK-UP KSS-213B/K-N			
261	1-775-991-11	WIRE (FLAT TYPE) (16 CORE)			
FL501	1-517-740-11	INDICATOR TUBE, FLUORESCENT			
M101	A-4660-968-A	MOTOR ASSY (WITH PULLEY)(LOADING)			
M102	X-4947-303-1	MOTOR ASSY (WITH PULLEY)(SLED)			
M151	X-4950-461-1	MOTOR ASSY (SPINDLE)			
⚠T901	1-431-902-21	TRANSFORMER, POWER			
**********					

Ref. No.	Part No.	Description	Remarks
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-473-720-11	REMOTE COMMANDER (RM-DX50)	
	1-590-925-31	CORD, CONNECTION	
	3-866-364-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH)	
	3-866-364-21	MANUAL, INSTRUCTION (GERMAN,DUCH,SWEDISH,ITALIAN, PORTUGUESE)(XB930)	
	3-866-364-31	MANUAL, INSTRUCTION (CHINESE) (XB930E:SP)	
	3-866-670-11	MANUAL,COMMONNESS INSTRUCTION (ENGLISH) (XB930E:UK)	
	3-866-670-21	MANUAL,COMMONNESS INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, PORTUGUESE, SWEDISH, ITALIAN, CHINESE) (XB930/XB930E:SP)	
	4-983-956-01	COVER, BATTERY (FOR REMOTE COMMANDER RM-DX50)	
	X-4951-832-1	STABILIZER ASSY	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-646-79	SCREW +BVTP 3 × 8 TYPE2 N-S	
#2	7-685-871-01	SCREW +BVTT 3 × 6 (S)	
#3	7-627-553-38	SCREW,PRECISION +P 2 × 3	
#4	7-627-852-07	SCREW, PRECISION +P 1.7 × 2.5	
#5	7-621-775-10	SCREW +B 2.6 × 4	
#6	7-685-885-09	SCREW +BVTT 4 × 16 (S)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-928-931-11

Sony Corporation
Home Audio Company

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